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Families Practicing Sustainability: The Adoption and Maintenance of Environmentally Responsible Behaviors in the Context of Family Life

Brandis Brooke Judkins
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To the Graduate Council:

I am submitting herewith a dissertation written by Brandis Brooke Judkins entitled "Families Practicing Sustainability: The Adoption and Maintenance of Environmentally Responsible Behaviors in the Context of Family Life." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Human Ecology.

Priscilla Blanton, Major Professor

We have read this dissertation and recommend its acceptance:

John Nolt, Gary Peterson, Deborah Tegano

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

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FAMILIES PRACTICING SUSTAINABILITY: THE ADOPTION AND MAINTENANCE OF ENVIRONMENTALLY RESPONSIBLE BEHAVIORS IN THE CONTEXT OF FAMILY LIFE

A Dissertation
Presented for the
Doctor of Philosophy
Degree
The University of Tennessee, Knoxville

Brandis Brooke Judkins
May 2004

DEDICATION

This dissertation is dedicated to my parents,
Stewart Henry Judkins (1944-1993) **and**
Carolyn Souther Judkins (1944-present),
for their constant support and encouragement as I make my way through this life.

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I would like to thank my partner, Joe Dinwiddie, who inspired me to research this topic and who supported me all along the way. I am also grateful to my mom, Carolyn, and my two older sisters, Caroline and Lexie, who gave me encouragement and who also understood when I didn't have time to talk or visit. My appreciation also goes to James and Cannan Hyde, who frequently checked-in with me to see how I was progressing on the study (and how I was doing!) and who rejuvenated my spirit when we were together. I would also like to express my gratitude to other family and friends who helped carry me through the process of completing a dissertation. I truly see finishing this dissertation and completing my degree as a joint effort, and not something that I did on my own.

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ABSTRACT

The lifestyles of contemporary Americans are threatening the sustainability of plant and animal life on earth. Unsustainable household choices related to food consumption, waste generation and disposal, transportation, energy use, and family planning are at the crux of the problem. However, there are a small number of American families that are committed to practicing a more environmentally sustainable lifestyle, and contrary to popular assumptions, sustainable behaviors are being practiced not only on rural homesteads, but in urban households as well. The purpose of the present research, therefore, was to identify the types of sustainable behaviors that a sample of these urban families are practicing, and to describe the processes by which these families have adopted and maintained more environmentally sustainable practices. A grounded theory approach was chosen because of its methodological emphasis on identifying processes that operate within a phenomenon. Twelve couples (n=24) completed a brief questionnaire, which included demographic information and an assessment of individual partners' involvement in household maintenance of sustainable practices, as well as participated in interviews regarding their household's experiences with practicing sustainable behaviors.

Five themes were identified from the data: 1) continuity of worldview into marital relationship, 2) emphasis on encouraging and nurturing children's ecological awareness, 3) strengthened parent-child and spousal relationships, 4) housework as a shared responsibility, and 5) children as challenging to a more sustainable lifestyle. Additional factors in families' adoption and maintenance of sustainable practices were the importance of effective communication between partners and community support. Key

concepts were pulled from the data and organized into an illustrative model of the processes by which families adopt and maintain sustainable lifestyle practices.

The findings from the present study provide a preliminary look at the forces that motivate families to adopt sustainable behaviors, and the factors that enable them to maintain these behaviors over time. While concern for the state of the environment was a major motivating factor for these families in living more sustainably, other important influences were good health for family members, higher quality family relationships, and being part of a community. As for being able to maintain sustainable behaviors, the critical components for families were that couples have similar social and environmental ideologies, that there is the capacity for effective communication among family members, and that household labor be shared equitably between partners. More research in this area is needed to reinforce the findings from the present study and to identify other important factors in families' practice of a more environmentally sustainable lifestyle.

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CHAPTER 1

INTRODUCTION

Rationale for the Study

In 1992, and again in 1997, the Union of Concerned Scientists- 1,700 of the world's leading scientists, including the majority of the Nobel laureates in the sciences- issued a "Warning to Humanity." It stated that human behaviors, primarily of those persons in developed countries, are damaging the natural environment to the extent that the future of plant and animal life on the earth is questionable. They urged developed nations to curb their overconsumption by making significant and immediate changes in the ways in which people live. In the time since these warnings were issued, the U.S. government has failed to implement policies that address the magnitude of the scientists' warnings. Steps need to be taken to address these concerns. The U.S. is an immense consumer and polluter of the Earth. With only 4.6% of the world's population, we use 25% of the world's commercial energy, 93% of which comes from nonrenewable fossil fuels (Miller, 1998), one-third of the world's paper (Brower & Leon, 1999), and consume the highest quantity of meat per capita of any other country (Durning, 1992), a food that requires large amounts of land and grain for feed. As for the wastes that result from our consumption, it is estimated that the U.S. is responsible for 20% of global emissions (Brower & Leon, 1999) and produces 33% of the world's solid waste (Miller, 1998), which is defined as "any unwanted or discarded material that is not a liquid or gas" (p. 296). The majority of this waste gets dumped in landfills where it can pollute the surrounding soil and groundwater (Miller, 1998).

The environmental impact of American households stems mainly from choices involving transportation, food, and household operations (Brower & Leon, 1999). Personal cars and light trucks (minivans and SUVs) account for almost 50% of toxic air pollution, 30% of greenhouse gases, 22% of water pollution, and 15% of land use in the U.S. (Brower & Leon, 1999). The production of meat and poultry in the U.S. consumes 25% of land use, nearly 20% of water use, and contributes to 20% of the water pollution (Brower & Leon, 1999). Running household appliances and heating and cooling our homes accounts for about 25% of the air pollution and for over 30% of greenhouse gases (Brower & Leon, 1999). Additionally, the average size of new homes in America is 2,120 square feet, the monthly use of electricity is 500 kWh and gas is 60 to 150 therms, the typical daily water consumption is 300 to 500 gallons, thirty pounds of solid waste is generated each week (per person), and the average weekly distance that is driven (per adult) is 220 miles (Dholakia & Wackernagel, 1999). According to these data, the environmental "footprint" of average Americans is at least three times larger than the world average. It has been estimated that we would need three more Earths if everyone in the world lived like the average American (Wackernagel et al., 1997).

In 1995, a study conducted by the Merck Family Fund of American's views on consumption and the environment revealed "Americans are alarmed about the future" (Harwood Group, p. 2). Participants' concern rested on the belief that American priorities are out of balance, with an overemphasis being placed on the material and a lack of emphasis placed on the non-material. The effects of such societal distortion, they worried, threaten the quality of life of future generations. They identified

overconsumption as a primary social and ecological problem in the U.S, but they expressed uncertainty about how to change our present course:

> People perceive a connection between the amount we buy and consume and their concerns about environmental damage, but their understanding of the link is somewhat vague and general. People have not thought deeply about the ecological implications of their own lifestyles; yet there is an intuitive sense that our propensity for "more, more, more" is unsustainable (p. 2).

While there is sufficient information that is available on what Americans can do to lessen their consumption and reduce their negative impact on the environment, there is no literature concerning what it is like to adopt and practice the full-spectrum of these behaviors in the context of family life. As the majority of American households consist of families of some type, it is pertinent that we learn more about the adoption and maintenance of ecologically-conscious behaviors in families and their households.

Purpose of the Study

It is the purpose of the present research to study families that practice environmentally responsible behaviors who live in urban or semi-urban areas. In studying the human-nature relationship, the bulk of research has focused on individual motivations and behaviors for responding (or not) to the ecological imbalances resulting from the ways in which we live. While starting with an understanding of the individual in relation to nature is a fundamental and logical origin, it is now necessary for researchers to move beyond the singular person to study environmental motivations and behaviors at the group level, in the context of social and interpersonal relationships. This seems a particularly rational progression since individuals do not typically live in

isolation. Rather, most of us live our lives in contact and relationship with others, and it is in this context in which we make choices and adopt behaviors. Perhaps the primary place to study individuals at the group level is in the context of the family, since our family relationships have such a strong influence on our attitudes and behaviors. As well, U.S. families consume a significant amount of natural resources and pollute the environment through their dependence on the conveniences and comforts created by modern technology. Therefore, American families that are currently practicing environmentally-conscious behaviors emerge as a logical context for studying the ways in which families adopt and maintain sustainable living practices.

In addition, the most popularized model of an environmentally-friendly family lifestyle is one that is based on the homesteader, or "back to the land", movement in which families relocate to a rural setting where they pursue a more self-sufficient way of life. One of the main characteristics of this "back to the land" model of sustainable living is a retreat from the hectic pace and consumer-orientation of mainstream society. While this type of lifestyle appeals to and is effective for some families, the reality is that the majority of American families choose to reside in urban and semi-urban areas. It is evident, then, that an additional model of environmentally sustainable living needs to be developed that addresses issues that are relevant to families living in urban and semi-urban areas.

Research Questions

Four main research questions emerged out of the present author's interest in studying families that are practicing environmentally sustainable behaviors. First, how do families become invested in environmentally responsible behaviors? Is it something

that they've always done, or did they make a distinctive decision to start incorporating these behaviors somewhere along the way? Second, how do families maintain environmentally responsible behaviors? Specifically, what do individual family members contribute to helping the family unit to maintain less damaging practices? Third, what challenges and tensions do couples experience in adopting and maintaining ecologically-conscious behaviors in the context of having children? Did living this kind of lifestyle become more difficult in any way once children came into the picture (assuming that the lifestyle was in place before the couple had children)? And fourth, what do couples see as the benefits of ecologically-conscious living for their family, in addition to lessening their impact on the environment?

Theoretical Perspectives

Family Ecology Theory

Family ecology is an interdisciplinary theory that has roots in home economics but which has over time incorporated perspectives from biology, sociology, ecological psychology, and political science (Bubolz & Sontag, 1993). As its name implies, the theory provides an ecological perspective on families, one that takes into account the many environments in which families operate and the influences of families on their environments. Family ecology, as presented by Bubolz and Sontag (1993) was chosen as a theoretical framework for the present research because of its' inclusion of the natural environment as part of the human ecosystem, and also because it incorporates both micro- and macro-level perspectives on families and their behavior. These perspectives are relevant for the present study because while the research questions emphasize family operations at the microlevel, the purpose of the research- to understand how families

adopt and maintain environmentally responsible behaviors- has implications at the macrolevel. The macrolevel implications are the impact that families' behaviors have on the health of the natural environment, both locally and globally. Therefore, family ecology provides a suitable theoretical framework for the present research.

The broad and multidimensional nature of family ecology theory makes it necessary to pull out concepts from the theory that are most applicable to studying the incorporation and maintenance of environmentally responsible behaviors among families. The four research questions, which address 1) the incorporation of sustainable behaviors, 2) maintaining sustainable behaviors, 3) the challenges of practicing sustainable behaviors while raising children, and 4) the benefits of living more sustainably for families, were used to assess the concepts of family ecology theory that would be useful in gathering specific information regarding these research questions. What follows, then, is a presentation and description of the theoretical concepts that were chosen for each research question.

The concepts of family ecology theory, as presented by Bubulz and Sontag (1993), that are relevant to families incorporating sustainable living practices into their daily lives are *values*, *adaptation*, and *management*. Values operate by shaping beliefs about what constitutes good and right behavior and subsequently, influencing decision-making and human action (p. 436). Individual and family values play a significant role in the ways in which families initially come to practice behaviors of sustainable living. Adaptation is a process involving the modification of behaviors to fit within the structural and organizational boundaries set by the environment. At the initialization stage, families that are incorporating environmentally responsible practices into their daily lives must

learn what behaviors are possible and reasonable for them to adopt (i.e., bike to work and shopping centers, grow their own food, etc.) considering the opportunities and limitations of their surrounding environment. However, adaptation is not a linear process in which the only direction of influence is from the environment to families. Rather, through their actions, families also influence their environment and are, therefore, capable of bringing about changes within their neighborhoods, communities, and cities that enable them to act on their values. Management involves tasks such as goal setting, planning, implementing, and evaluating as well as means for carrying out these tasks like motivating, mediating, learning, and integrating (p. 436). The process of management occurs as families decide on courses of action, implement new behaviors, and make necessary changes based on the outcomes. Negotiation, between family members as well as between families and their environment, is an integral part of the on-going processes of management within families.

The concepts of family ecology theory that are relevant to families maintaining sustainable living practices in their daily lives are *sustenance activities*, *resources*, and *communication*. Sustenance activities are activities of daily living that meet the needs of the family system. They are characterized as activities that are regular, repetitive, and enduring (p. 434). Sustenance activities include paid work in the labor force as well as unpaid work involving household labor and childcare. The ways in which family members are involved in sustenance activities is particularly relevant for sustainable living because of the amount of unpaid work that is an integral part of this lifestyle. The resources that families utilize in maintaining sustainable living practices come from their physical and social environment, as well as from the skills and knowledge of individual

family members. The physical environment refers to access to recycling centers, proximity to work, schools, and shopping centers, and available land space to grow food, whereas the social environment takes into account both formal (educational workshops, training) and informal (like-minded citizens) sources of support for a sustainable lifestyle that are available to families within their communities. Personal resources relevant for sustainable living include physical health for activities like gardening and splitting wood, skills for tasks such as sewing and home-repairs, and knowledge about areas like alternative technologies and companion planting.

Communication is an important component of maintaining sustainable living behaviors because of the necessity for interaction among family members about family efforts as well as from families to their communities regarding how their efforts to practice sustainability are helped or hindered by the structure and organization of their environment (community). Among family members, communication is a carried out through the sharing of reactions, knowledge, ideas, and meaning. The extent to which families are successful in their sustainable living endeavors depends heavily on the quantity and quality of teamwork that operates in their household. Attempts at sustainable living will not be effective if, for example, only one family member puts food scraps in the compost bin while the others throw them in the garbage can. In order for teamwork to be created and sustained there must be open communication among family members about what kinds of sustainable living practices the household wants, and is able to engage in, as well as how these practices will be carried out on a regular basis.

Establishing effective communication within the family system is a prerequisite for the communication that needs to take place between families and their communities.

When families are clear about how they want to practice sustainable living they can communicate to their communities what they need in terms of external supports for this lifestyle. For example, a family might request that their local library carry more books and videos on sustainable living and related issues, they might attend city-county meetings and push for the inclusion of bike lanes on new roads, or they may join with other like-minded families in establishing a local food cooperative. Families and their environment (communities) are interdependent, and for this reason, sustainable living will be confined to the limits of the environment unless families engage in processes of communication with their communities about their needs for effective practice of this lifestyle.

The concepts of family ecology theory that are relevant to the challenges and tensions that couples experience in practicing sustainable living and having and rearing children are *decision-making* and the *socio-cultural environment.* While decision-making is ongoing within a relationship, the nature of the decision-making process and even the outcomes themselves change when a couple has children. Indeed, perhaps the most life- and relationship- altering decision that a couple can make is to have a child. Ecological theory posits, though, that it is not only the couple that is affected by the birth of a child. The natural environment is impacted, as well, due to the earth's resources that the child will consume throughout its life. This is especially true for children born and/or raised in the United States, where consumption levels are among the highest in the world. Decision-making among parents who are practicing sustainable living may revolve around issues such as using cloth or plastic diapers, feeding the child a vegetarian or non-vegetarian diet, the use of conventional or alternative medical treatments, what kinds of

cleaning and pest-control products to use in and around the home, what to do about a child's pleas for consumer products like popular toys, sugary cereals, and trendy clothes, and whether or not the child can watch television and if so, how much and what types of programs. Whereas many parents in America make decisions based on their child's well-being and their financial resources, parents that are practicing sustainable living additionally consider the impact that their child-rearing decisions will have on earth's natural ecosystems.

Several of the decisions that parents practicing sustainable living are faced with stem from the influence of the socio-cultural environment on their children. According to ecological theory, the socio-cultural environment is comprised of people, languages, laws, cultural norms and values, and social and economic institutions (p. 432). Outside of familial influence, the major environmental elements that guide children's development are peer groups, media, and advertising. These elements of the socio-cultural environment impact children's perceptions of what constitutes normal and appropriate behavior, shapes their attitudes, and influences their wants and desires. Since the prevailing norm in American society is excess material and resource consumption, parents that practice sustainable living are raising their children against the norms of mainstream American culture. While parents, no matter what their ideological beliefs, are likely to try to shield their children from those environmental influences that they deem inappropriate or perhaps harmful, children and their families cannot be removed from the socio-cultural environment in which they live.

The main concept of family ecology theory that is relevant to couples' perceptions of the benefits of sustainable living for their families, in addition to lessening their impact

on natural ecosystems, is the *quality of human life* or *human betterment*. Quality of life for humans is concerned with individual, familial, and societal well-being. Common indicators of degrees of individual well-being are the degree of happiness, the presence of anxiety and depression, levels of satisfaction and dissatisfaction, and the extent to which one feels in control of one's life. One of the goals and hallmarks of sustainable living is self-sufficiency, which has a positive correlation with feelings of being in control of one's life. When individuals feel more in control of their lives they tend to experience less anxiety and depression and higher levels of personal and social satisfaction. Degrees of family well-being are largely influenced by the ability of families to meet their needs for adequate shelter, food, clothing, education, employment, and health care. It is also impacted by the quality of interpersonal communication and the level of commitment that exists among family members. Meeting family needs, much like meeting individual needs, in a self-sufficient manner can bring greater satisfaction for families. When family members work together to produce some of their own food, clothing, self-powered transportation, an energy-efficient home, and good health through eating well and exercising, among others, then they experience a sense of pride in themselves as well as in each other. As noted above, communication and teamwork among family members are essential components of sustainable living, and the more that families engage in these processes the greater the well-being that they will experience.

Degrees of societal well-being are distinguished by factors such as social justice, health of citizens, and the absence of war. Practitioners of sustainable living usually share similar ideological frameworks, or worldviews, that are rooted in equity as opposed to dominance. They are typically concerned not only with respectful treatment of the

earth but also with the same treatment among humans, regardless of gender, race, religion, or socioeconomic class. Many of the agricultural and industrial products that are produced in the United States and abroad are produced in ways that are exploitive of the workers at the lowest rungs of the social order. This class of workers is comprised of migrant workers and persons with low educational and economic status. The hazards of their jobs include exposure to carcinogens, lung and respiratory irritants, pesticides and fertilizers, and other toxic chemicals, as well as risks of injuries from repetitive motions or from the operation of dangerous machinery. Families that practice sustainable living are reducing or eliminating their dependence on the products sold by exploitative economies, and in doing so, are withdrawing their financial support of such social injustices.

Another facet of social justice that sustainable living supports is that of an equitable sharing of resources (p. 437). With an emphasis on simple living and taking only that which is needed from their environment, families that practice a sustainable lifestyle reject the contemporary western model of excess consumption and acquisition, a model which in practice results in great disparities in access to and distribution of resources among the world's people. Instead, these families model a lifestyle that is grounded in an awareness and appreciation of the importance of balance in the survival of living ecosystems.

Societal well-being is also measured by the overall health of citizens. In addition to psychological health discussed above, physiological health is a vital component of individual well-being. Many elements of the mainstream American lifestyle, though, are harmful to rather than beneficial for individual health. Being

sedentary at work, in the car, and at home, consuming highly processed and chemical-filled foods and beverages, operating at a hectic pace and never feeling caught up, and breathing polluted air are lifestyle behaviors and components that lead to physical illness. Families that are practicing sustainable living are leading a lifestyle that is characterized, as much as possible, by regular exercise, home and/or locally grown, unprocessed or minimally processed, non-chemical laden food, and a somewhat slower pace of life. While the quality of the air that is breathed can only be controlled to a certain extent, these families are reducing air pollution in their homes by using non-toxic cleansers and pesticides, and in their cities and communities by decreasing their dependence on the automobile through the use of combined trip planning and self-propelled or mass forms of transit. The lifestyle behaviors of families that are practicing sustainable living also contribute to lessening the motivations for war. A central motivation of contemporary wars has been, and continues to be, a drive to secure control of or access to limited supplies of natural resources that are in high demand, such as oil to fuel automobiles and make plastics, and coal to provide electricity. Families that adopt sustainable living practices do their part to reduce consumer demand for products that are manufactured from finite natural resources, thus promoting a more peaceful world.

Ecofeminist Theory

Ecofeminism is a branch of feminist theory in which it is posited that there is a connection between the oppression of women and the destruction of nature, both of which are perceived as stemming from assumptions held by the dominant patriarchal paradigm. Warren (1990) holds that the conceptual and structural frameworks of oppressive systems operate through a "logic of domination" in which the subordination of

certain groups (or things) is justified by assumptions regarding the inferior nature of the oppressed, and likewise, the superior nature of the oppressors. Applying the logic of domination to ecological feminism, Warren explains that the dominant patriarchal paradigm is based on two assumptions: (1) that rationality is superior to emotionality or physicality; and (2) that the capacity to affect consciously the environment in which one lives is superior to not having the capacity to do so. Herein lie the bases for cultural assumptions that males, who are associated with rationality, are superior to females, who are associated with emotionality and physicality, and that humans are superior to plants and rocks (nature) due to their capacity to effect their own environment (p. 128-129). While different feminists' perspectives view analysis of this logic of domination in diverse ways, it is the belief of all ecofeminists that women and men should be respected equally, and that adequate respect should be given to nature.

The different schools of feminist thought and their connection to ecological justice do not lend themselves easily to categorization and description. However, Plumwood (1994), as the basis of her argument for a "new" ecofeminism, attempts to do just that. Her work offers the best synthesis and analysis of ecofeminist perspectives to date. According to Plumwood, there have been three distinct movements, or waves, in ecofeminist thought, each of which is characterized by a radically different perspective than the one that preceded it. The first wave of ecofeminism was based on the assumption that there are no significant differences between males and females, and that equality for women was to be achieved by having them move into the "man's world" through entering male-dominated professions and by adopting male behaviors and characteristics. From the perspective of first-wave ecofeminism, the ideal couple would

be one in which both the male and female have careers and contribute equally to household chores and childcare, at least as much as their work outside the home would allow them to. This couple would share in the cooking, cleaning, shopping, childcare, recycling, yard maintenance, and perhaps tending to a small garden, or at least potted herbs. Since both partners would be working full-time, though, some of the household responsibilities would be out-sourced to providers in the community. Such couples' children would be in daycare during the week, a housecleaning service would come twice a month, meals would frequently consist of prepared foods- either from the store or from a restaurant- and a lawn service would manage the yard. This couple might be members of the Sierra Club, would be on the waiting list to purchase one of the first hybrid-powered SUVs, and would vote the liberal ticket at election time.

Second-wave ecofeminists, largely inspired by the essentialism reflected in the work of feminist Carol Gilligan, propose that males and females are inherently different, and that women have unique qualities that should be respected and valued as much as, if not more than, distinct male characteristics. It is the position of second-wave ecofeminists that women should be revered for their connection to nature and for the work that they do in nurturing relationships, both human and non-human, and that culture should be reconstructed to accommodate these feminine values. The ideal second-wave couple, therefore, would place much importance on "women's work" such as spending time in the kitchen, nurturing and educating young children, mending clothes and sewing quilts, caring for plants and flowers, and shopping with an ecological conscience. While not an absolute, the partner typically better suited to these tasks, from the perspective of second-wave ecofeminists, would be the female. In order for her to be able to tend to the

home, it is likely that her husband would be employed outside the home in order to provide for the family's financial needs. Around the home the activities of her male counterpart would center around maintenance such that he might take care of loading and transporting items to the recycling centers, fixing a leaky faucet, maintaining the yard with manual tools, and keeping the 1982 Toyota Corolla running.

Third-wave ecofeminists, rather than asserting a definitive "right" way of approaching gender and equality, have sought to challenge the assumptions of first and second wave feminism, which they see as lacking a critical assessment of the dominant patriarchal paradigm. The goal of third-wave ecofeminism is to eradicate dualistic thinking, which tends to set up hierarchies, and to create new patterns of thinking. Dualistic patterns of thinking that are particularly relevant to third-wave ecofeminists are those that have been set up between masculine and feminine, human and nature, reason and emotion, mind and body, and objectivity and subjectivity (Des Jardins, 1997). Alternative ways of thinking arise from recognition of the interdependencies inherent in humans and their social and ecological environments. In contrast to the universal approach of first- and second-wave ecofeminists, those of the third-wave prefer a contextual approach that takes into account individual differences, or diversity. Therefore, in the ideal third-wave household the couple would have a high degree of conscientiousness regarding gender roles and other dualistic patterns of thinking, and they would engage in critical dialogue about the ways in which these assumptions are played out in the dominant male paradigm. This couple would make earnest attempts to avoid falling into the trap of gendered notions about household labor. Who washes and dries the dishes? Who repairs the chain on the bike? Who engages in these behaviors is

less important, according to third-wave ecofeminists, than whether or not partners believe that they have the freedom to choose.

Definitions of Concepts

For the purposes of the present study, family will be defined as a cohabitating couple (legally married or not) that is currently raising at least one child. This definition was chosen based on conceptual and methodological issues, and it is the present author's hope that future research in this area will include family households of other types (childfree couples, single parents, adult children and aged parents, adult siblings, etc.).

Sustainable living is generally defined as meeting the needs of the present without impairing the ability of future generations to meet their needs (WCED, 1987—see Oskamp, 2000 for full reference).

Urban areas are, according to Scherch (1997), characterized by "high residential and commercial population densities, extensive evidence of built environments and infrastructure including major highways and mass transportation, and the absence of large portions of open land space including farm lands, meadows, and forests (p. 81). Semi-urban areas are similarly characterized, but have less residential and commercial population densities and less extensive evidence of built environments and infrastructure, compared to urban areas.

Environmentally responsible/ Ecologically-conscious behaviors or practices are being defined as consisting of the following: 1) recycling cans, paper, plastic, glass; 2) growing some or all of the food for one's family; 3) buying organic foods; 4) buying locally grown produce; 5) purchasing produce through a CSA (community supported agriculture is an enterprise in which people prepay for shares of a local farmer's produce); 6) using

alternative energy sources; 7) reducing household energy consumption; 8) reducing household water consumption; 9) driving less for environmental reasons; 10) consciously reducing consumption of material goods; 11) purchasing products with less packaging; 12) using non-chemical, biodegradable household cleaning products and recycled, non-chlorine bleached paper products; 13) buying organic cotton clothing, bedroom and bathroom items, and personal hygiene products (tampons, menstrual pads, etc.).

CHAPTER 2

REVIEW OF LITERATURE

Definition of Sustainable Living

What is meant by the phrase "sustainable living"? According to Webster's dictionary (1991), "sustainable" means to nourish, to keep up, and to prolong. As described by Milbrath (1996), a system is sustainable when "it will keep functioning for the indefinite future" (p. 99). Sustainable living, therefore, is a way of living that can be continued indefinitely. Gershon & Stern (1995) define sustainability as "using the Earth's resources (trees, water, energy, minerals, etc.) in a way that makes sure there will be enough for others- today and tomorrow" (p. 1). Analogous to sustainable living is the concept of "voluntary simplicity", which is characterized primarily by reducing life's distractions and complications as well as one's consumption of material goods and natural resources (Elgin, 1981). By any of these definitions, though, the majority of American families are not practicing sustainable living. It is the purpose of this review, therefore, to present the ways in which American families need to change their behaviors so that the ability of future generations to meet their own needs is not further impaired.

Food

In contemporary, mainstream American households food production has become a thing of the past. An increasing number of American families have shifted from growing and raising some or most of their own food to purchasing food produced by someone else, which is typically shipped from another region or country. Cooking for one's family has also become much less prevalent, as is evident in the nostalgia that is associated with a "home-cooked meal," and the growth in the restaurant industry.

Americans purchase their food from grocery stores, which offer highly-processed convenience foods, frozen meals, "just add water" boxed foods, and pre-prepared meals in increasing quantities. What is not bought from the supermarket is purchased in weekly, and for some daily, meals from restaurants and fast-food chains. Thus, contemporary Americans are dependent upon all facets of the food industry for their daily provisions. This system, though, is not environmentally sustainable.

The majority of the food that Americans consume has traveled substantial distances to get to a place where it can be purchased. Foods that are processed often require transportation to several locations before they are ready to be purchased. A vivid description is provided by Nolt et al. (1997):

> Day and night, seven days a week, in any weather and in all seasons, constantly and without interruption, streams of smoke-spewing eighteen-wheelers rush noisily along the interstates to feed us. They roll in from California, from Mexico, from the Pacific Northwest, from Florida, and via Gulf ports from Brazil, Guatemala, Costa Rica, and points south, carrying food to a land once peopled by some of the most rugged, independent, and self-sufficient farmers on earth (p. 102).

This steady stream of eighteen-wheelers contributes to air-pollution as well as to fossil-fuel resource depletion. This is not a system based on rationale or ecological concern, for Americans could eat more locally grown food, but rather on economics and profiteering. Rooted in these goals is the way in which food is produced in America as well as in other countries that have bought into agribusiness. While diversity of crops is a proven means of keeping plants and soil healthy, modern large-scale agriculture consists of planting

vast amounts of acreage in one crop. Monocropping, as it is called, weakens plants and depletes the soil, thus resulting in the use of chemical fertilizers and pesticides, both of which pollute the soil, groundwater, and nearby streams and rivers. The environmental damage from the transportation of food and from the way in which conventional food is grown is referred to as the "hidden costs" of being able to walk into a supermarket or restaurant and purchase one's food. These hidden costs are not accounted for in the market price of our food, and the ecological systems that make up our planet pay the price.

In order to practice sustainable living in terms of food production and preparation, American families can do many things. One such thing they can do is to grow some of their own food. A small patch of land or even several large containers can be used to grow mixed greens, tomatoes, beans, peas, squash, strawberries, and several other kinds of produce. Aside from growing some of their own food, American families can purchase fewer processed, pre-packaged foods, eat out less often, and do more cooking from scratch. Buying locally grown and/or organic (grown without chemical pesticides and fertilizers) produce and food products are other ways that families can lessen their negative impact on the environment and support more sustainable methods for food procurement.

Waste

It is estimated that the average American produces 3.5 pounds of garbage per day (Gershon & Stern, 1995). For a family of four, that means fourteen pounds of garbage *daily*, and ninety-eight pounds of garbage *weekly*, on average, are being hauled off to the landfills. More and more landfill sites are needed to hold all of the garbage that

Americans generate, yet, such land is becoming more difficult to acquire due to resistance from citizens and neighborhoods near proposed landfill sites (Nolt et al., 1997). These communities oppose the encroachment of landfills near their homes because of the noise, smell, and groundwater contamination that is associated with garbage dumps (Nolt et al., 1997). The greater the amount of garbage that is generated the more trucks there are driving back and forth between pick-up sites and the landfills. As with the trucks that distribute food to places where it can be purchased, garbage trucks pollute the air and contribute to the depletion of fossil fuel resources.

In modern American households, human wastes, urine, and fecal matter, are removed and the water used to remove them must go through several industrial processes to reach a quality where it can be sent through the municipal water system again. These processes of "cleaning" such wastes require large amounts of water, chemicals, and energy to pump water that is in different stages of waste removal to various containers where additional energy is needed to churn the water. This is an on-going, 24 hours a day, seven days a week process.

In American households that practice sustainability, waste is reduced to a minimum. The "three R's", reduce, reuse, and recycle, are routinely practiced. Families make the effort to reduce their consumption of material goods and products, and to reuse what they already have or some part of what they have purchased (packaging, for instance). Reducing consumption is a major component of sustainable or simple living, but it does not entail deprivation. As explained by Elgin (1981):

> To bring the quality of simplicity into our levels and patterns of consumption, we must learn to live between the extremes of poverty and excess...living with either

> too little or with too much will diminish our capacity to realize our human potentials. Bringing simplicity into our lives thus requires that we understand the ways in which our consumption either supports or entangles our existence (p. 165).

Thus, families that practice sustainable living have learned how to distinguish between their needs and their wants, a difficult task in material- and status-driven American society. While the emphasis amongst these families is on reduction of unnecessary material consumption, recycling of what *is* consumed is used to minimize the household waste that is generated. Paper, cardboard, some plastics, aluminum and bi-metal cans, and glass are collected and distributed by families to appropriate recycling centers, either through curbside recycling programs or through drop-off recycling centers that are typically located in proximity to grocery stores or other places that are frequently visited by citizens. These families are conscious of purchasing products that have the least amount of packaging, and will choose products with recyclable packaging over those with packaging that cannot be recycled. Food scraps that are generated in the kitchen are composted for use as a high quality soil amendment. As for human wastes, urine and composted fecal matter make excellent fertilizers for plants and trees. Collected, diluted urine can be used on any plants (edible and non-edible), and composted fecal matter is safe to use on any perennials. By recycling human wastes as nutrients for plants and trees, families are completing the cycle that began with food consumption.

Energy

Most Americans pay monthly bills to their local utility companies for their household's use of electricity and natural gas. Electricity provides the bulk of

American's household energy needs, with natural gas being used mainly for heating purposes. The electricity consumed in America is primarily generated from petroleum (oil), coal, and nuclear power. Petroleum, coal, and natural gas are nonrenewable resources, which means that there are finite amounts of them that are available for human use. At current consumption rates, petroleum reserves are expected to last at least another 44 years, identified coal reserves could last about 300 years, and natural gas reserves should last another 65-80 years (Miller, 1998). However, while the U.S. has over 50% of the world's coal reserves, it has only 2.3% of world's oil supplies, with the largest oil suppliers being Saudi Arabia and Iraq (Miller, 1998). Therefore, with the heavy dependence on oil that the U.S. has created for itself, it is projected that as oil reserves become smaller the price per barrel will increase, which could result in forced changes in American lifestyles, and has lead already to military conflict over remaining oil reserves. Depleting the earth of these natural resources is not the only, or perhaps the primary, source of concern. The extraction, processing, and use of these natural resources results in energy consumption as well as vast amounts of pollutants being emitted into the air and water. Coal is the dirtiest fossil fuel being used for energy and the EPA reports that coal-fired power plants in America produce most of the sulfur dioxide, a major pollutant, in the air (Brown, 2002).

In the sustainable home, steps are taken to reduce the energy that is necessary to keep the household functioning. A portion of the electricity that is consumed in conventional households is used for various cleaning purposes. Dishwashers, clothes dryers, and vacuums all have low to zero electricity use alternatives, resulting in the same outcomes. In sustainable households, dishes are washed by hand and set on a rack to dry,

or are also dried by hand. Clothes are washed in cold water, which saves about 90% of the electricity that is used when clothes are washed in hot water (Gershon & Stern, 1995). Once washed, clothes are hung outside or on indoor drying racks when it is raining. Floors are swept and rugs or area carpets are taken outside and shaken or beat with a broom to be cleaned. Wall-to-wall carpet typically needs to be vacuumed, and therefore its use is minimized or avoided, when possible.

Another significant portion of household electricity and natural gas is consumed by home heating and air-conditioning systems. Some families that are practicing sustainability are able to get by with using wood-burning stoves in the winter and natural air-conditioning (i.e., open windows, shade trees, passive cooling features) when it is warm. Many Americans, though, use central heat and air-conditioning systems to heat and cool their homes. When using central heat, sustainable families keep their thermostats at "sweater" temperature, 65-68 degrees Fahrenheit during the day, and "blanket" temperature, 55-58 degrees Fahrenheit at nighttime and when no one is home (Gershon & Stern, 1995). When using the air-conditioning in their homes, these families keep their thermostats at 78 degrees Fahrenheit or above, since there is a three to five percent energy savings with every increased degree (Gershon & Stern, 1995). Top quality insulation around windows and doors helps to keep homes warmer in the winter and cooler in the summer. Other ways that families reduce their energy consumption are by turning lights and appliances off when they are not in use, and by installing compact fluorescent lightbulbs in all of their light fixtures. Although initially they are more expensive, compact fluorescent lightbulbs consume about 70% less electricity for the

same amount of light produced by a standard incandescent bulb and they last about ten times longer than a standard (Gershon & Stern, 1995).

Transportation

America has become an automobile-ruled nation, with 98% of urban transportation occurring by car (Miller, 1998). This high volume of automobiles on city streets makes it difficult and dangerous for persons to walk, and especially bike, around town. Not only is it dangerous, but urban sprawl has spread cities out so much that it is impractical, in many instances, to bike to work, to schools, or to shopping areas because it might take all day to accomplish just one of these trips. In American society the automobile is a symbol of freedom and movement, yet with increasing numbers of cars on the roads there is more traffic, and Americans are spending significant amounts of time in their cars just getting to work or the store and back home. All of the little daily car trips add up, and as suggested by Nolt et al. (1997), it is not unreasonable to think that Americans spend about an hour in their cars each day, which over a seventy-two year lifespan comes to a total of three years.

Automobile use accounts for at least 50% of the air pollution and two-thirds of the oil consumed in America (Miller, 1998). Motor vehicles emit carbon dioxide, a by-product of burning fossil fuels, which is a greenhouse gas that traps heat from the sun in the earth's atmosphere (Miller, 1998). The large amount of carbon dioxide being emitted from all of the cars on the road means increased heat being held in earth's atmosphere. This rise in temperature could bring about major climatic changes on earth. Automobiles emit more than carbon dioxide, though. As described by Nolt et al. (1997): "The fluids in the radiator, transmission, windshield washer reservoir, braking system and oil sump are

all, to varying degrees, toxic" (p. 181), as are emissions of CO, NO_x, and volatile organic compounds from the exhaust. As cars age they tend to release more of these harmful fluids.

Families that are practicing sustainable behaviors try to limit their dependence on automobiles by using alternative means of transportation, such as biking, walking, taking public transportation, and carpooling. These families may choose to live within biking distance from their work, or within walking distance from their children's school. They may also get to know their neighbors and try to organize carpooling within the neighborhood. Families practicing sustainable living may have only one car, and they tend to have cars that are smaller, more fuel-efficient, and that produce fewer emissions than standard, less fuel-efficient models. When the car is used, families try to combine trips so that the most is accomplished (errands, etc.) using the least amount of fuel, and with as little time spent in the car as possible.

Family Planning

While human population growth is cited as a major contributor to contemporary and future environmental problems (Oskamp, 2000; Howard, 2000; Grant, 2000), fertility rates in the United States have fallen significantly and have remained at or below replacement level since 1972 (Miller, 1998). This fact leads many to believe that reducing the number of children that are born is solely a concern in less developed countries, where 95% of the projected population growth is expected to take place (Miller, 1998). These numbers themselves, though, do not tell the whole story. Based on their consumption and pollution patterns, the average American has an ecological footprint that is three times the size of the world average (Wackernagel et al., 1997), and

likely four to five times the size of the average person in less developed countries. This means that children that are born or adopted and raised in the U.S. will consume significantly greater amounts of natural resources and generate much more pollution and waste than children that are raised in less developed countries. For this reason, reducing birth rates in the U.S. is an important component of moving towards a more sustainable society.

Couples that have adopted an ecologically-conscious lifestyle consider the environmental consequences of raising children in the U.S. in their decision to either become parents or to remain childfree. Such couples that do choose to have children typically have only one or two, with two children per woman being the replacement level fertility rate (Strong et al., 2001). Family planning focuses on women's health, birth spacing, and birth control methods, and it is an integral part of sustainable living. Additionally, family planning involves educating children and adolescents about sexuality and about methods and availability of contraception, as well as creating a safe environment for youth to share, either with their parents or with another trusted adult, their thoughts and questions regarding sexuality. This latter application of family planning is particularly relevant as teen pregnancy rates in the U.S. remain high compared to other industrialized countries.

Division of Household Labor

One of the hallmarks of environmentally sustainable living is greater self-sufficiency. Greater self-sufficiency is characterized by providing more of what a household needs to function within the household unit itself, and depending less on external sources for such support. For contemporary American families, this means

practicing behaviors such as growing some of their own food, or at least relying less on prepackaged foods by cooking at home, drying washed clothes naturally, washing dishes by hand, and reusing household items (clothes, plastic storage bags, containers, etc.). Use of appliances such as clothes dryers, dishwashers, and vacuums results in greater dependency on externally provided electricity, so in sustainable households their use is minimized. Within in the context of family life, practicing sustainable behaviors means that household labor is more time and energy intensive. Given that women typically perform the majority of household tasks, it is irrational to expect that they will be able to invest even more time and energy into household chores in order to practice environmentally sustainable behaviors. Therefore, greater equity in the division of household labor is a critical factor in the extent to which couples are able to implement and maintain sustainable living practices.

It is widely known and empirically supported that women outperform men when it comes to household labor (Demo & Acock, 1993, Starrels, 1994; Stapinski, 1998; Greenstein, 2000; Hochschild, 1989). Studies show that although men's participation in housework has increased throughout the last half of the twentieth century, women still do the bulk of household labor (Starrels, 1994; Bianchi et al., 2000). Not only are women responsible for more tasks, but the types of tasks that women perform need to be done more frequently and are less discretionary than traditional male tasks such as car maintenance, minor home repairs, and yard work (Steil, 1997; Hochschild, 1989; Mederer, 1993). Marital and parental statuses affect the amount of housework that women perform, with the number of hours that they spend on chores increasing when they marry (South & Spitze, 1994) and with the addition of children (Brines, 1994; South

& Spitze, 1994; Shelton, 1992). In terms of marital status, the reverse has been found to be true for men. Married men spend much less time on housework than do single men (Bird, 1999).

These findings are constant whether or not women are employed outside of the home in paid labor. In her pivotal work on dual-earner couples, Hochschild (1989) found that women were putting in a full day of labor in paid employment, only to come home and put in an unpaid "second shift" taking care of children and housework. Demo and Acock (1993) reported that while husbands of employed wives contributed more to housework than husbands of women who were not employed outside the home, the time that employed wives spent on housework still accounted for about two-thirds of the total time that the family spent on such tasks. Additionally, studies have shown that among dual-earner couples, the more that wives out-earn their husbands, (i.e., the more economically dependent a husband is on his wife), the less time that husbands spend on housework (Brines, 1994; Greenstein, 2000). While the opposite is true when wives are more economically dependent on their husbands, researchers have speculated that when wives out-earn their husbands, both husbands (Brines, 1994) and wives (Greenstein, 2000) participate in "deviance neutralization" by adhering to a traditional division of household labor.

What are the outcomes of an inequitable division of labor on couples, and the women and men that comprise them? Research suggests that the affects are damaging, particularly for women. For example, in their study of dual-earner couples, Stevens et al. (2001) reported that there was a negative relationship between the number of hours women spent on housework and their level of marital satisfaction. It was also found that

satisfaction with domestic-labor arrangements was related to marital satisfaction for both women and men. As well, next to the amount of money that they earn, women have reported that the lack of help with household work that they get from their husbands is the biggest source of frustration in their lives (Roper Organization, 1990).

Assessing division of labor and psychological well-being, Steil (1997) found that women who had a more equal say in household decision-making and whose husbands were more involved in child care responsibilities reported less frequently feeling lonely, sad, irritable, worried, tense, weepy, fearful, worthless, and disinterested in sex. Perceptions of social support, or the available resources within one's social network, have been found to be higher among persons who report more equitable relationships (Van Willigen & Drentea, 2001). In addition, higher depression levels in women have been associated with their perceptions of greater inequity in the division of household labor (Bird, 1999).

There is ample evidence to suggest, then, that the implementation of sustainable living practices in the households of many contemporary American families is likely to exacerbate existing gender inequities in the division of household labor. Therefore, in order for families to successfully implement sustainable living practices, it is crucial for couples to share household labor equitably. Two research-based models of equitable relationships have been presented in the mainstream literature, the "collaborative couple" by Barnett and Rivers (1996) and the "peer marriage" by Schwartz (1994). Each model's relevancy for the implementation and maintenance of sustainable living practices will be discussed.

Models of Equitable Relationships

The research conducted by Barnett and Rivers (1996) was a four-year study of the stresses and rewards experienced by couples in which both spouses were employed full-time. Three-hundred couples who lived and worked in the Boston area participated in the study. Over half of the couples had children under the age of 18 at the onset of the study. Barnett and Rivers developed a model of, what they termed, the "collaborative couple" from their research findings. According to the authors, the "collaborative couples" that they studied shared the "economic and household management functions of the family" (p. 39). Both partners in collaborative couples contribute to the family's financial resources, share in parenting responsibilities, and perform household tasks. The responsibilities for household management and functioning lie equitably with both males and females, so that there is no domain of household functioning that is dominated by one partner or the other. As for employment, Barnett and Rivers explain that among collaborative couples, both partners are engaged not just in getting a paycheck, but rather in a career that brings them satisfaction and a sense of identity. It is this parity that enables women and men to come to a partnership as "two complete people, not halves of a set in which one piece is unfinished without the other" (p. 40). The authors see this new model of marriage as a natural outgrowth of the large influx of women into the paid labor force that began after World War II, but which has greatly accelerated since the 1970s. They propose that it is time to let go of the dichotomous traditional model that emerged after the Industrial Revolution in which work and home were considered to be separate, unrelated spheres wherein males occupied the former and females the latter.

According to the authors, the collaborative couple has emerged as an essential replacement for the traditional gender-segregated model.

Even though collaborative couples share responsibilities for household functioning and maintenance, there is much dependence in these households on the services of external providers. The female authors proclaim that they have "happily dodged housework when we could" (p. 183) and boasted that one of the authors has never even owned an iron. Supermarkets and restaurants are praised for the "excellent takeout" that they provide, and cooking has become something that occurs only when one or the other partner has the desire to do so. Therefore, while on the one hand the collaborative couple model promotes women in that they have equal power in their relationships, on the other it degrades women in that the work of the home, which is still widely seen to be women's work, is approached as something that has no inherent value to women or men, and therefore, is to be avoided when possible. This rejection of the work of the home is in direct opposition to the attitudes and behaviors that are needed in order for couples to implement and maintain environmentally sustainable practices in their households.

Inspired by her previous research of couples in America, Schwartz (1994) set out to find to discover what really makes egalitarian marriages or partnerships work. She interviewed a small number of couples that were self-identified as having an egalitarian relationship. Not all of the couples that participated in her study, though, had truly egalitarian relationships, thus yielding the distinction that Schwartz makes between "near-peer" and "peer" marriages. Similar to collaborative couples, partners in "peer marriages" approach their relationship with "dedication to fairness and collaboration" (p. 2). Schwartz (1994) described the couples that were involved in peer marriages as

exhibiting characteristics of equity, in which partners give in proportion to what they receive, and equality, wherein partners have equal status and equally share responsibility for household functioning and maintenance. What sets peer marriages apart from collaborative couples, though, is the way in which women's equal status and equity in the relationship is achieved. For collaborative couples, women gain equal status to men by moving into a "man's world," or the world of paid labor. In this model, the emphasis for women as well as men is on having a career. Being a professional and having a job that brings satisfaction is presented as the key to creating an equitable relationship. Among peer marriages, however, the emphasis is on family relationships and home life.

Discussing how partners in peer marriages make a commitment to eliminating the provider role, a role that sets up hierarchy and a power imbalance, Schwartz diminished the importance of one's career: "In order for peers to share economic responsibility and shun the provider role, they must put the marriage *above* their economic success" (p. 126, italics in original). To this end she explained that there are some occupations that are simply not compatible with peer marriages, due to the large amounts of time and energy that they require. What happens when a partner has a highly demanding job is that "the career runs the relationship" (p. 131), which means that family relationships are sacrificed for career achievement and success. Although it was not always easy, men and women in peer marriages in Schwartz's study tailored the type and schedule of their employment to suit the needs of their families. Schwartz further explained that it is not inherent that peer marriages be comprised of dual-earners, rather, what is critical is that both partners have equal access to money and influence in decision making in family financial matters.

Thus, the peer marriage appears to be a more suitable model for the implementation and maintenance of sustainable living practices. In contrast to the negative attitudes about housekeeping illustrated among collaborative couples, partners in peer marriages respect the work of the home. In identifying the differences between traditional husbands and peer husbands, Schwartz reported: "Many [peer husbands] actually enjoy these tasks. Like many wives, they like to cook, take pride in their homes- or at least some part of the cleaning or homemaking experience- and can think of only a few duties that they wish they could hire someone else to do" (p. 121).

Conclusion

Sustainable living requires a different approach to household labor than what is currently practiced by most American couples. In order for families to successfully implement and maintain environmentally responsible behaviors, there needs to be a paradigm shift in the way homemaking is viewed in contemporary American households. While the emphasis in popular culture is on the speed and ease with which household chores can be completed, in sustainable households the focus shifts to the ways in which homemaking can be completed with the least amount of harm to the environment. Thus, some types of household labor may require more time and energy. Since women typically perform the bulk of household labor, a new model for egalitarian relationships is needed in order to increase the likelihood that sustainable practices will become established in American households. The peer marriage, which emphasizes family relationships and home life, emerges as one such model.

Environmental Literature

Qualitative Research

The most relevant empirical work, for the present study, on sustainable living that has been carried out has been the work of Jonathan Scherch (1997), who conducted a study of individuals that were practicing sustainable living in East Tennessee and the Southern Appalachian Bioregion. His research is relevant to the present study for several reasons. First, Scherch studied people that had already adopted and who regularly practiced sustainable living behaviors, unlike other studies of environmental behavior in which the focus is on the implementation of sustainable behaviors. Second, the participants in his study had incorporated a wide range of sustainable behaviors into their daily lives, and as such, these behaviors characterized their lifestyles. Most of the empirical work on environmental behavior singles out a specific practice, such as recycling or composting, to focus on, thus limiting the scope and applicability of the findings. A third reason for the relevancy of Scherch's research is that the sample for his study was drawn from the same region in the Southeastern U.S. that the sample for the present study will be taken from. Therefore, a review of Scherch's results will provide a necessary foundation for the further study of sustainable living that is the purpose of the present research.

Using qualitative methods, Scherch (1997) interviewed 94 individuals regarding their experiences with sustainable living. His sample consisted of slightly more males than females, for whom the average age range was 30 to 50 years old. While the participants came from all income levels, two-thirds of the sample had a college degree and one-third had completed some graduate work. Respondents were primarily

Caucasian, with three African American participants. About half of the respondents lived in a rural setting, with the other half residing in more urban contexts. Participants reported their practices of sustainable behaviors in areas categorized by Scherch as being related to food, shelter, energy, transportation, and health.

Almost two-thirds of the respondents reported that they grew at least some of their own food, and organic gardening methods were the predominant choice among these persons. Several of these persons explained that they or their partners maintained gardens, and in some cases small farms, while the other partner worked away from the home. Slightly over one-fifth of participants said that they were members of a community supported agriculture (CSA) program. More than 75% of persons sampled reported shopping at food-cooperatives and/or natural food stores, and about one-third claimed to be vegetarian. In terms of reducing kitchen waste, two-thirds of respondents stated that they composted their food scraps. While several participants said that they had reduced their consumption of fast-food, some explained that they still eat it because of its convenience and due to "preferences of family members, especially children" (p. 95).

For their dwellings, the majority of participants had chosen natural and or recycled materials for their homes, with more than two-thirds reporting the use of a composting toilet and/or an outhouse. Thirty percent generated some or all of the energy for their homes through alternative technologies such as solar, wind, and micro-hydro, and the same percent made use of alternative heating and cooling methods. Natural heating and cooling methods that were reported were passive solar, greenhouses, wood stoves, heavy indoor curtains and window shutters, and solar-powered fans. Respondents

transported themselves to and from their homes with as little dependency on their automobiles as was possible. They reported walking, biking, using mass transit (when available), car-pooling, trip combining, driving fuel-efficient cars, and maintaining older models of cars as ways that they practiced more environmentally responsible transportation.

In their interviews, several participants talked about the emphasis that they placed on personal health and how Western medicine often did not meet their needs. Many of them said that they practiced preventive methods, which were described as the intake of high quality foods (preferably from their own garden) and clean water, regular exercise, and limited use of toxic chemicals, such as cleaners and deodorants, in their homes. When ill, respondents were likely to try herbal remedies before, or in place of, a visit to a Western physician. One mother explained the difficulty that she had had in finding a doctor for her child that would agree to not do immunizations and to very limited, if any, use of antibiotics.

Among some of the early influences on participants' adoption of sustainable living practices that were mentioned were the first Earth Day in 1970, parental role models, partner influence, travel experiences, and the environmental degradation of natural settings that had been frequented in childhood or adolescence. For some, parents served as models for the promotion of social and economic justice, and for one man who grew up in a family with few financial resources, as teachers of conservation. Respondents also said that they came to practice sustainable living through the influence of their partners, who were described as living that way before they had met. Through various national and international travel experiences, participants were exposed to

different ways of living, as well as the effects of over-consumption on human conditions in other parts of the world and on the environment.

In addition to the references to family relations that have already been mentioned, one man reported that his family had no television because his wife thought that the images on TV were unhealthy for their children's social and moral development. He explained that he agreed with not having a TV because he saw it as a device for getting people to buy products and to over-consume, although he suggested that public television might be all right. In this example, the couple is performing an environmentally responsible behavior (no television), but the primary motivations for doing so are different for the wife and the husband. The wife's reasons were focused on childrearing, whereas the husband's main concern was economic in nature.

Other participants reported experiencing some difficulties in negotiating boundaries between their children and the external systems that influence them (schools, peers, etc). For example, one mother related that when her children went to their friends' homes they had an instant shower, whereas at their own home they had to heat the water first. She explained that they have had to negotiate somewhat on the planning and frequency of her children's showers. Despite the difficulties in raising children to practice sustainable behaviors in a material- and consumption-driven society, several parents expressed a desire to bring their children up to be conscious consumers and practitioners of a sustainable lifestyle.

Demographic Predictors of Environmental Attitudes and Behavior

There has been other socioenvironmental research that has looked at demographic predictors of environmental attitudes and behaviors. Studies have revealed that women

tend to have stronger environmental attitudes and behaviors as compared to men, and that women's environmental concerns are more likely to be rooted in relational issues (i.e., harm to children and/or others) whereas men report more frequently economic issues as the basis for their environmental concern (Zelezny et al., 2000; Stern et al., 1993). Blocker and Eckberg (1997), using the General Social Survey, found that women were more concerned about pollution, environmental health and safety issues (for humans and animals), and were more likely to have a "green" personal lifestyle compared to men. The authors also reported that women with children were more likely to have a "green" personal lifestyle, but that the same was not true for men. However, a study of environmentalism, feminism, and gender by Smith (2001) revealed that what has appeared to be a relationship between gender and environmentalism may actually be one between feminism and environmentalism, with larger numbers of females than males espousing feminist beliefs. As well, findings of gender differences in environmentalism are challenged by Kalof et al. (2002) in their research on race and gender as predictors of environmentalism. Their results indicated that there were significant differences in environmentalism between White men and White women, but that this did not hold true among Black and Hispanic males and females, who reported similar levels of altruism and openness to change in relation to environmentalism.

While earlier environmental literature has presented Blacks as less likely to be environmentally-minded than Whites, more recent work has shown that this is not the case (Kalof et al., 2002; Jones, 1998; Newell & Green, 1997; Parker & McDonough, 1999; Dietz et al., 1998). Several studies have indicated that Blacks are as concerned for the environment as Whites, but that their concern often lies in different areas. For

example, Blacks have been found to be more concerned than Whites about safety and health issues related to solid, toxic, and nuclear wastes (Jones, 1998), about air and noise pollution, litter, and water supply (Parker & McDonough, 1999), and more likely to view nature as fragile and to support government spending on the environment (Dietz et al., 1998). The environmental concerns of Whites, however, tend to be higher for issues such as global warming and ozone depletion (Jones, 1998) and overpopulation (Parker & McDonough, 1999), and they are more likely than Blacks to choose health of the environment over economic progress (Dietz et al., 1998). Much less research has assessed the environmentalism of Hispanics, but in one such study by Kalof et al. (2002), it was found that Hispanics were more likely than Whites to subscribe to proenvironmental beliefs and to place importance on altruism.

Differences in types and levels of environmentalism between Whites and persons of color have been attributed to experiences of oppression and a sense of powerlessness among ethnic minorities in the U.S. (Parker & McDonough, 1999; Kalof et al., 2002). As Taylor (2002) discusses, many Blacks and members of other ethnic minorities have increasingly had solid and toxic wastes dumped in their communities and backyards because they are not able to afford an effective resistance like those that take place within middle class communities. As such, the focus of environmental concern for persons of color living in close proximity to toxic and solid waste sites is likely to be centered around issues dealing with cleaning up their immediate environments. As for varying levels of environmental concern, Jones (1998) pointed out that while Blacks may not rank environmental issues as high in priority as do Whites, it is necessary to contextualize this

by considering the other concerns that cloak many black communities which likely seem more pressing in nature, such as joblessness, drugs, and crime.

Other sociodemographic variables that have been considered, although not to the extent that gender and race have been, are education, age, and rural/urban residency. It appears as though education is a predictor of environmentalism, with higher levels being correlated with greater environmentalism (Mazur & Welch, 1999; Dietz et al., 1998; Scherch, 1997). As for age, environmental concern tends to be strongest among younger persons, although this association is only moderately consistent (Van Liere and Dunlap, 1980; Dietz et al., 1998). The gap in rural-urban differences in environmentalism, while once thought to be quite wide with urbanites being more proenvironmental, has appeared to narrow somewhat in recent times (Jones et al., 1999; Freudenburg, 1991). This is particularly true in the vicinities around outdoor recreation areas, such as national and state parks, and wildlife sanctuaries (Jones et al., 1999). However, these findings on the sociodemographic bases of environmentalism should be considered preliminary due to the limited number of studies in which they have appeared.

Summary

Due to the interdisciplinary nature of the present study, it was necessary to draw upon research from various fields in presenting a review of the literature. First, a definition and overview of environmentally sustainable living is provided. The information contained in this section is primarily from the environmental psychology and applied environmentalism literatures. Second, from the family sciences literature, the division of household labor and its effects on women and couples is discussed, along with an evaluation of two research-based models of equitable relationships. The third section

presented the findings from a qualitative study of individuals that practice environmentally sustainable living, and the last section consisted of results from sociological and psychological research on sociodemographic predictors of environmental attitudes and behavior.

CHAPTER 3

PROCEDURES

Methodology

A qualitative approach has been chosen for the present study of families that practice sustainable living. Qualitative inquiry is an inductive process that is characterized by an evolving or emergent design, the presentation of multiple points of view, the role of researcher as an instrument of data collection, and a focus on participants' views (Creswell, 1998). It is a useful approach for exploring phenomenon, particularly in new fields of interest in which little empirical work has been conducted. It is a recommended method for research in which the purpose is to understand *how* or *what* rather than why in relation to the phenomenon being studied (Creswell, 1998). Qualitative methods provide an up-close view of a phenomenon, a perspective that is necessary in understanding the perspectives of individual participants as well as the processes at work in the focus phenomenon. The specific qualitative tradition of inquiry that will be used is grounded theory, which is a methodology that is particularly appropriate for studying issues of process that operate within a phenomenon.

Grounded theory is a tradition of inquiry that originated in the field of sociology, but its methods have also been used in research in the fields of psychology and nursing (Creswell, 1998). Its main purpose is to generate theory that is grounded in data, and this is accomplished by the development of and interrelation of categories of information that emerge from the data (Creswell, 1998). There is a strong emphasis on concept development starting early in the data collection process. According to Strauss and Corbin (Handbook), researchers utilizing the grounded theory tradition of inquiry engage

in theoretical conceptualization of the data, which means that they are "interested in *patterns* of action and interaction between and among various types of social units" (p. 278, italics in original). Grounded theory is a comparative approach in that new data that are gathered are compared to the data that preceded it in order to determine how the information fits together at conceptual, structural, and theoretical levels. Researcher sensitivity to the phenomenon being studied is important for gaining insight into and giving meaning to the data, and it is increased by working with the data and through personal and professional experiences with the focus phenomenon (Strauss & Corbin, 1998). Grounded theory researchers recognize that their theoretical sensitivity is influenced to a certain degree by the mutual or reciprocal shaping that occurs between researchers and the persons that they are studying. While some researchers perceive reciprocal shaping as taking place primarily between researchers and their data (Strauss & Corbin, 1994), others view the actual participants (not just their "words") as additional players in this exchange (Charmaz, 2000).

Due to the process-oriented focus of the present study, the grounded theory tradition of inquiry is appropriate. The grounded theory tradition fits well for the present study in that the purpose of this research is to generate a theory that interrelates the ways in which families incorporate and maintain ecologically friendly lifestyles. While some of the research questions are descriptive in nature, others are explanatory and more focused on process. Additionally, since the emphasis in the grounded theory approach is on interactional patterns among two or more "social units" rather than on the individual, it is a method of inquiry that is particularly well-suited for the study of couples and families.

Sampling

There are many avenues through which the present researcher identified families that met the criteria for having lifestyles that exact less impact on the environment. First, families were recruited through the snowball or chain strategy. Snowball or chain sampling occurs by way of obtaining references for potential participants from personal contacts as well as current participants in a research project (Creswell, 1998). Once this strategy was exhausted, then announcements were posted in a local food cooperative, asking families to participate. As well, the researcher attempted to meet potential participants by attending local conferences and/or functions in which it is likely that families, or persons with families, who practice sustainable living will be in attendance. Families were compensated for their involvement with a donation of $20 made in their name to a local environmental organization.

Families that met the criteria for the present study regularly performed at least eight of the following environmentally responsible behaviors:

- Recycle cans, paper, plastic, glass
- Grow some or all of their own food
- Buy organic foods
- Buy locally grown produce
- Be members of a CSA (community supported agriculture)
- Use alternative energy sources for environmental reasons
- Take steps to reduce household energy consumption for environmental reasons
- Take steps to reduce household water consumption for environmental reasons
- Drive less for environmental reasons
- Consciously reduce consumption of material goods
- Purchase products with less packaging
- Use biodegradable and non-chemical household cleaning and personal hygiene products
- Other: _____

Assessment of families' performance of these behaviors was based on self-reports from couples. It was also a criterion that families live and operate in an urban setting, since it is a goal of the present study to generate a new model of sustainable living based on urban living. For the purposes of the present research, a definition of "urban " will be borrowed from Scherch (1997), who defined it as a setting that is "characterized by high residential and commercial population densities, extensive evidence of built environments and infrastructure including major highways and mass transportation, and the absence of large portions of open land space including farm lands, meadows, and forests" (p. 81).

The research questions in the present study emphasize couple processes related to decision-making, division of labor, and parenting in families that have adopted environmentally sustainable behaviors. The unit of analysis, or the focus of the present study, therefore, is the couple, and the theoretical findings are reported in this context. However, the unit of observation or coding is the individual, since interviews were conducted with wives and husbands separately, or on an individual basis. The decision to interview members of couples separately was made based on the following concerns. If members of couples were to be interviewed together, then there is the chance that individual partners would omit information from or minimize their responses to the researcher's inquiries due to the presence of their partner. Additionally, audiotape recordings of interviews in which there are more than two people present can be quite challenging, even for an experienced transcriptionist. Therefore, interviews involving only the interviewer and one interviewee are more likely to result in high quality transcriptions.

Sample Information

The sample gathered for the present study consisted of 12 white, heterosexual couples who had one or more children. All couples in the sample were married. The average age of women in the sample was 42 years old (range: 26-66). For men, the average age was 47 years old (range: 29-67). The average annual income for families was $55,000 (range: $13,500-$100,000). The education level of participants was quite high, with 9 having Bachelor's degrees, 8 holding Master's degrees, and 4 having a Ph.D.

Individual participants were asked to rate themselves on their level of involvement in their family's practices of more sustainable behaviors. They were given a list of sustainable behaviors and they were asked to indicate beside each behavior the extent to which they were personally involved in carrying out that behavior. The rating scale was zero to 10 with zero indicating "not involved" and 10 indicating "very involved". Participants were instructed to leave blank any behaviors that were not practiced in their household. Full results are presented in Table 1.

Data Collection

Data was collected from couples that fit the sampling criteria. In-depth interviews were conducted on an individual basis with partners from each of the participating couples. Interviews were audio-taped and transcribed verbatim by the present researcher and/or hired transcriptionists. In addition to the interviews, the researcher kept a journal of theoretical and personal, or somewhat more intuitive, responses to participants and their experiences with sustainable living.

Families were recruited for the study based on how well they met the criterion for theory development at various stages of data collection. In the grounded theory tradition

TABLE 1

Average Ratings of Participants' Involvement in Household Sustainability Practices.

"0" = Not Involved, "10" = Very Involved

SUSTAINABLE BEHAVIOR	Women	Men	Couples
Recycle cans, paper, plastic, glass	9.7	9.8	9.75
Grow some or all of own food	3.7	4.9	4.3
Buy organic foods	7.0	5.7	6.4
Buy locally grown produce	6.0	4.7	5.4
Take steps to reduce household energy use	7.0	7.5	7.25
Take steps to reduce household water use	6.8	5.4	6.1
Drive less for environmental reasons	6.6	5.0	5.8
Consciously reduce consumption of material goods	8.7	7.1	7.9
Buy in bulk/products with less packaging	8.3	5.2	6.75
Use biodegradable cleaning and personal hygiene products	7.7	5.7	6.7
OVERALL AVERAGE RATING	**7.1**	**6.1**	**6.6**

of inquiry, this is known as "theoretical sampling", or when researchers purposefully choose participants that appear to be able to contribute to the emerging theory design (Creswell, 1998; Strauss & Corbin, 1998). Data collection was continued until categories that the present researcher had identified from interview data were "saturated", which means that additional interviews are not contributing new information or categories (Strauss & Corbin, 1998).

Data Analysis

Analysis of the data followed the guidelines and techniques prescribed by Strauss and Corbin (1998) for grounded theory development. A distinct feature of grounded theory that differentiates this approach from other qualitative research traditions is its strong emphasis on the integration of data collection with data analysis. As described by Creswell (1998), this process of integration has somewhat of a "zigzag" nature in that the researcher collects data in the field and then analyzes it, then he or she goes back into the field to collect more data, then analyzes that, then back out into the field to collect more data, etc (p. 57). Going back and forth between data collection and analysis allows the researcher to gather further information based on the concepts and/or categories that have subsequently emerged from collected data, thus building the theory from the ground up. Additionally, integrating data collection with analysis serves as a means of increasing researcher sensitivity to the data, which, in turn, strengthens her or his ability to employ "analytic tools" such as the use of questioning and making comparisons (Strauss & Corbin, 1998).

The analytic tools of asking questions and making comparisons are essential procedures in grounded theory data analysis. Strauss and Corbin (1998) identify four

types of questions that are used in research investigations. *Sensitizing* questions are primarily descriptive in nature, and they help researchers to be aware of what is going on in the data. Issues of process and variation are addressed by *theoretical* questions, which assist researchers in identifying relationships among concepts and categories. *Practical* or *structural* questions serve the purpose of directing sampling and developing structure for the evolving theory. Changing over the course of the data analysis process, *guiding* questions stem from the evolving theory and are used to direct interviews and analysis so that data that is collected will be relevant to the emerging theory. While the authors stress the use of theoretical types of questions, they acknowledge that, regardless of its type, a good question is one that helps to further the understanding and development of theoretical constructs.

Making comparisons between "classes of objects, incidents, or acts" is a technique for bringing out the properties and dimensions of categories. Comparisons can be made between similar phenomena as well as between highly non-similar phenomena, otherwise known as "far-out comparisons" (p. 82). The purpose of making far-out comparisons is to stretch researchers' thinking beyond where it might have ended with the sole use of similar comparisons, in order that the data can be viewed more abstractly, as well as to enhance researcher sensitivity to complexities in the data. Theoretical comparisons are made at an abstract level and do not deal with specific cases, so researchers can bring in objects, incidents, or acts for comparison from the literature or their own experiences. As Strauss and Corbin (1998) emphasized, what researchers bring in for the purpose of making comparisons does not become data, rather it only serves as a

means for researchers to add breadth and density to the properties and dimensions of their categories.

The initial phase of theory building involves identifying concepts and categories in the data, a technique that has been termed "microanalysis" (Strauss & Corbin, 1998). Microanalysis involves detailed analysis of small pieces of information such as a word, a line, a sentence, or a paragraph from the data. Information is generated and new perspectives are gained from asking questions and making comparisons with these smaller units of the data. Examination of such minute pieces of data is necessary to help researchers identify concepts and generate initial categories from the data, as well as to assist researchers in getting beyond their own assumptions about what the participants are saying. While microanalysis is primarily used in the beginning stages of data analysis, this technique can be used at any point in the theory building process when researchers get stuck or when they are having difficulty setting aside their own notions about what they are seeing in the data.

The analytic process of *open coding* is carried out through the microanalysis technique and, as described by Strauss and Corbin (1998), it involves "identifying concepts, defining categories, and developing categories in terms of their properties and dimensions" (p. 103). When several concepts have been identified they are then grouped into categories, and categories are combined when it is relevant to the data. Base categories that have been defined are then developed along their *properties*, defined as the characteristics and attributes of a category, and their *dimensions*, or the variation of a property along a continuum or range. These categories, and their properties and dimensions, are used as bases for comparison to subsequent data that is collected.

The second phase of data analysis, termed "axial coding", involves identifying subcategories, which answer questions about the phenomenon being studied, and establishing their relationship to the categories that are generated during open coding. The term "axial" is used in the name of this coding process because the purpose is to develop categories around their "axes", based on the linkages between their properties and dimensions. Axial coding occurs through identification of the variety of conditions, the actions and interactions, and the consequences that define a category (p. 126). In addition, Strauss and Corbin (1998) propose the integration of structure and process during axial coding. Structure provides the framework that sets the stage (context) for the action or event, which is the process. The authors explain that structure answers "how?" events occur and that process answers "why?" events occur, and they assert that answers to both lines of questioning are essential for understanding the nature of the properties and dimensions associated with a phenomenon (category).

During selective coding, the third major stage in data analysis, the task is to integrate and refine categories into a theory. Integration begins with identification of a central explanatory category around which other categories can be placed. As outlined by Strauss and Corbin (1998), the central category is characterized by its relation to all other major categories, its repeated appearance in the data, and its ability to explain variation within categories (p. 147). The authors recommend three techniques to assist researchers in identifying the central category and in the integration of concepts: writing the storyline, using diagrams, and reviewing and sorting memos.

Writing the storyline involves generating a couple of descriptive sentences that capture the essence of what the data is saying to the researcher. It may be necessary for

researchers to reread interviews and other forms of data. The focus in rereading interviews should be on the overall picture of what participants have presented, not on the specifics of what they reported. Another technique for understanding relationships among categories is to draw a diagram of how the concepts fit together. This helps researchers to think logically about how the concepts are related, and also gives them some distance from the data so that they can think conceptually rather than descriptively. Diagrams should include the major concepts and categories that emerged from the data. Reviewing and sorting through memos, a third tool utilized in the selective coding process, enables researchers to look back at how concepts and categories emerged, and this can be helpful in identifying how they fit together. This technique, though, is useful to the extent that researchers have kept regular, detailed memos that identify the properties and dimensions of categories as they have emerged.

Refining the theory is the second task in selective coding, and it involves checking the categorical scheme for consistency and logic, making sure that categories are adequately developed, and validating the theory. Categories, and the relationships among them, that researchers propose should lack inconsistencies and be logical in nature. Categories should also be densely developed in terms of their properties and dimensions, and those categories that do not appear to fit the theoretical scheme should be identified and taken out. Validating the theory requires that researchers make sure that there is a good fit between abstract theoretical schemes that they have generated and their raw data. This can be accomplished through comparing the theory to the raw data and assessing how well the theoretical scheme accounts for cases, and/or by sharing the theory with participants to see if it fits with their experience of the phenomenon.

Pilot Study

A pilot study for the present research was conducted as part of a project for a course being taken by the present researcher in qualitative research methods. A couple with one child was identified through a personal contact, and the family agreed to participate in the interview process. In-depth interviews were conducted with both partners, a wife and husband, individually. The interviews lasted one and a half to two hours, and were semi-structured around the main research questions that are presented in Chapter 1. As the data that were collected from this couple will be presented in Chapter 4, their experiences with environmentally sustainable living will not be discussed here. The purpose of reporting that a pilot study was conducted, however, is to further legitimate the present researcher's competence in conducting the current study.

CHAPTER 4

RESULTS

Family Descriptions

Elaine, 48, and *Steve*, 66, live in an old farmhouse on four acres located about eight miles from a downtown area. They have an eight year-old daughter who attends a Montessori school. Steve, who is nearing retirement, is a professor at a large university. Elaine previously worked part-time as an adjunct professor, but has worked full-time in the home for the last couple of years. They have installed a window and fan system in the second floor of their home to keep it cooler in the summer. Steve and Elaine have been practicing more sustainable behaviors as a couple for quite awhile, and they seem to have settled into this lifestyle, even though they are prone to their "greener than thou" arguments from time to time.

Gloria, 45, and *Gerald*, 50, live in an old Victorian home on a small lot in a historical neighborhood which is close to a downtown area. They have a 10 year-old daughter who attends a public elementary school and a 5 year-old son who goes to a private preschool. Gerald works three-quarters time as a construction and landscape manager. Gloria is employed full-time as a librarian. Gerald picks up the children after school and brings them home. Gerald and Gloria are enthusiastic about trying out new sustainable practices. For example, last year they installed rainwater catchment barrels around the outside of their home, and they use the collected water for their flower and vegetable gardens. In terms of implementing new practices, Gloria is more likely to spend time reading about how to do something, whereas Gerald will just go out and do it.

Kim, 26, and *Sam*, 29, live in a stone and wood house on 2 acres located about 6 miles from a downtown area. They have an 8 month-old daughter and Sam has a 10 year-old son from a previous relationship. Sam works evenings and weekends at a home-improvement store and cares for their daughter during the weekdays. Kim works full-time as a graduate student in nutrition. Sam has cultivated a large vegetable garden on their property, and the family is committed to vegetarianism. Both Kim and Sam are drawn to a rural homesteader lifestyle, but their practice of Sikhism holds them back from making this change because it is a central tenet of their faith that they be active, residential members of the community.

Tonya, 41, and *Ed*, 38, live in an Arts and Crafts style home in a historical neighborhood close to a downtown area. Ed has a 14 year-old daughter from a previous marriage who lives with them two weeks of each month. Ed, who is a woodworker by trade, started and currently operates a cabinetry business. Tonya works part-time as a nurse practitioner. She takes primary responsibility for Ed's daughter when she is with them, and even instructs Ed on what he needs to be doing as a parent (advice that Ed readily accepts). Ed and Tonya prefer to have fewer, high quality items than larger

quantities of lower quality things. In renovating their older home, Tonya and Ed have made it super-insulated and have installed energy-efficient appliances and lighting, and they have replaced older toilets with low-flush equivalents.

Callie, 29 and *Blaine*, 30, live in an apartment that is about 3 miles from a downtown area. They have a 3 year-old daughter and an 18 month-old son. Blaine works full-time as a doctoral student in the humanities, and Callie works full-time as a mom. While Blaine and Callie practice quite a few sustainable behaviors in their current setting, they get frustrated with living in an apartment and being limited in the amount of personal space they have to garden, compost, and hang clothes outside to dry. Also, on a graduate student's income, they are not able to afford as much organic food as they would like. Callie and Blaine have one car and Blaine rides his bike to and from campus.

Sharon, 49, and *Gill*, 50, live in a farm house on an acre in the suburbs. They have three daughters ages 14, 11, and 9. Gill works full-time as an architect and business-owner. Sharon is an artist and educator who left her full-time job managing a non-profit organization after their third daughter was born. She occasionally teaches art in the public schools and works full-time as a mom. Gill does not think that the family is doing much in terms of living more sustainably, but Sharon disagrees. They built their house with passive solar features and they grow vegetables in a large, circular garden area that is bordered with fruit and nut trees.

Sophie, 35, and *Scott*, 35, live in a small ranch house about 1 mile from a downtown area. They have two sons ages 13 and 5. Scott works full-time as a professor of organic agriculture at a small, liberal arts college. Sophie works full-time as a mom, and she also home schools both the boys. They were the only couple that mentioned that they have struggled with their decisions to bring children into the world and raise them in the U.S., where each child consumes several times the amount of children raised in other parts of the world. The family has one car, and Sophie and the boys frequently ride their bikes around town.

Willa, 38, and *Greg*, 53, live in an Arts and Crafts style home located 3 blocks from a downtown area. They have an 8 year-old daughter and a 6 year-old son. Greg also has a 23 year-old son from a previous marriage. Greg works full-time as a self-employed mason and carpenter. Willa works full-time as a mom and part-time as a substitute teacher in the public schools. She is also working on a graduate degree in education. Due to Greg being fifteen years older than Willa and his having had experience with parenting and homesteading prior to their relationship, Willa gets exasperated with the gap between their levels of experience. In their home they heat with a woodstove and they have no central air-conditioning system. They also garden in neighbors' yards, since their yard is small and steep, and in return they share the produce that they grow with the landowners.

Susan, 47, and *Wes*, 55, live in a small ranch house that is about 1 mile from a downtown area. They have three sons ages 25, 12, and 7. Wes works full-time as a

materials manager for a local hospital. Susan has a full-time job as a staff assistant at a small, liberal arts college. As a couple, they have a fairly regimented schedule for cooking, shopping, and doing laundry. Also, Wes keeps the refrigerator very organized in order to cut down on the amount of time it takes to find something in it, so as to not waste energy. Susan and Wes have built a passive solar room onto their home.

Mandy, 54, and *Bob*, 55, live in a ranch house that is located about half a mile from a downtown area. They have four grown children who are ages 32, 29, 26, and 23. Bob is the vice-president of a small, liberal arts college and Mandy worked as a teacher while raising the kids, but is now an active volunteer in the community. While the kids were growing up they lived on a working farm in Vermont. Mandy and Bob have one car and are notorious in their community for walking or biking everywhere. They are proud of the fact that they have never shopped at Wal-Mart.

Janet, 30, and *Ben*, 31, live in a ranch house which is 4 blocks from a downtown area. They have a daughter who is 7 years old and a son who is 4 years old. Ben is employed full-time as a clinical social worker. Janet works part-time as a freelance editor and full-time as a mom. She is homeschooling their two children. For the last couple of years, Ben and Janet have been struggling with making a decision about joining an intentional community focused on sustainability that has formed outside of town. Janet is very eager to move and become part of the community, but Ben has reservations about living in an isolated area where they would be much more dependent on their automobile.

Abby, 66, and *Doug*, 67, live in a ranch home located in a suburban area. They have three grown sons who are ages 42 and 37 (twins). Doug is retired as a humanities professor at a large university. Abby is a retired registered nurse. During the process of incorporating more sustainable practices into their family's lifestyle, Abbie remembers Doug seeming like a tyrant at times. When their sons were growing up they had a large vegetable garden and they used to buy in bulk more often. In retirement, they have shifted much of their focus towards supporting a nearby land conservancy of which they are members. Doug and Abby have built a greenhouse addition onto their house and they also have installed a solar hot water heater. They heat mostly with a woodstove.

Couple Areas of Agreement and Disagreement

As might be expected, there are more issues related to practicing a sustainable lifestyle that couples agreed about than they disagreed. One significant area of agreement among couples was the importance of parenting. Across all couples, both parents were involved in taking care of and spending time with their children. The time and energy that couples put into parenting was often spent reinforcing their commitment to a more

sustainable lifestyle. Parents took time to do things like wash out dirty cloth diapers, cook meals from whole foods instead of using prepackaged foods, and explain to their adolescent that the Nike shoes they want are made in sweat shops by young children in third world countries. Beyond sharing their commitment to living more sustainably with their children, couples were actively engaged in all facets of their children's lives.

Another area of agreement amongst couples was their acceptance of making efforts to live more sustainably, rather than striving for perfection. Several couples mentioned that one of the things that helps them maintain more sustainable behaviors is resisting the trap of thinking that they have to do everything more sustainably all of the time. They reported that when they do succumb to this way of thinking, they feel overwhelmed and paralyzed in their efforts because they have the sense that they will never be doing enough (or *not* doing enough). Couples talked about finding a balance in what they can do, incorporating those sustainable practices that fit into their lifestyle and trying not to dwell on those that do not fit at that time. In addition, there was an understanding amongst couples that their level of success in practicing the more sustainable behaviors that they had adopted would fluctuate. For example, several couples purchased the organic foods that they could afford, when they could afford them. Their preference was for all organic food products, but they had accepted that their financial situation at times limited the amount of organic products they could buy. Again, for all couples, the emphasis was on making efforts to live more sustainably instead of seeking perfection in this lifestyle.

A third area of agreement for couples was their commitment to healthy living, which they saw as benefiting their families both physically and mentally. For these

families, healthy living was characterized by eating whole (preferably organic) foods, being active, limiting time spent watching TV, and living more simply. Most couples reported that it was important for their food to be as close to its natural state as possible, so they relied very little on prepackaged mixes or prepared foods. Some of the couples were completely vegetarian, but most of them ate some type of meat or seafood on occasion. Physical activity was emphasized by couples, mainly as part of their efforts towards being more self-sufficient. Gardening, washing dishes by hand, chopping and stacking wood, and biking or walking instead of driving were among the common activities engaged in by families. Many couples saw these activities as better ways for themselves and their children to spend their time instead of sitting in front of the TV. Several couples had chosen not to have a TV in their homes, and those that did have televisions put limitations on the programs and amount of time that their children were allowed to watch TV. In addition to reducing the flow of television media into their lives, another primary way in which couples practiced a more simple lifestyle was de-emphasizing the accumulation of material goods. In general, couples were not focused on working harder to earn more money so that they could buy more and/or better things. Eating well, regular exercise, reduced TV watching, and minimizing purchases of material items were practices that couples believed improved the physical health and emotional well-being of family members.

While couples typically agreed on issues related to sustainability, there were a couple of areas in which disagreements between spouses were common. As one woman described, she and her husband frequently have "greener than thou" arguments in which one of them is more adamant about practicing a sustainable behavior than the other. A

common issue that couples were at odds about was the degree to which homes were heated and cooled. In general, in contrast to women, men tended to prefer a warmer house in the summer and a cooler house in the winter. Their motivation for keeping the indoor temperature closer to the outdoor temperature was ecological, but also economic, in nature. Some men reported that they preferred not to use air-conditioning at all, but since their wives wanted it on they had to try to reach a compromise. Similarly, in the winter, men preferred a much cooler house than their wives, so there was an on-going battle over the indoor temperature during those months as well.

Another area in which differences occurred was the extent to which spouses practiced conservation behaviors. In general, women tended to be more adamant about reusing things, conserving water, and limiting automobile use. A couple of women reported that they always went through the garbage can before taking out the trash because their spouses were inclined to throw away paper that could be recycled or notebooks which could be reused. Other women talked about their frustrations with their husbands for leaving the water running when they were not using it. Contrasted to men, women tended to be more committed to reducing their automobile use by biking and walking, and by combining trips that they needed to drive for in order to get the maximum efficiency out of their car use.

Themes

In analyzing the data from the 12 participating couples, five themes emerged as significant to couples' experiences with practicing a more sustainable lifestyle. Themes appeared across couples, and illustrative quotes were drawn from both spouses in most cases. Using illustrative rather than exhaustive examples from couples' data helps to

create a more complex and descriptive picture of each of the themes that was identified. A thorough presentation of each of the five themes is provided.

Theme One: ***Continuity of Worldview Into Marital Relationship***

This theme captures the way in which most of the couples who were interviewed came to be in a relationship where both partners are committed to practicing a more sustainable lifestyle. For the majority of the couples, partners had attained some degree of ecological consciousness prior to meeting and later marrying. This was true of Tonya and Ed, for whom ecological awareness began in childhood:

> There was certainly an effort to conserve electricity when I was growing up…it wasn't hard for me to realize that there's a finite amount of something, that there's a replenishing time for everything. I never considered it difficult to turn the light off when I left, or not run the water while brushing my teeth, even at 10 years old (Ed).
>
> It's not anything that I've learned consciously as an adult. I was just raised like that. He's always been like that, too…same kind of consciousness (Tonya).

For most partners, though, ecological consciousness began later in life. Some partners traced their initial influences on simple living and reducing waste to their parents, who grew up during the Depression. As described by Sharon, "I had that with my parents growing up, they were both Depression era children and my mom grew up on a farm in rural Virginia." Wes, too, acknowledged his parent's influence: "My parents were Depression era parents, so I learned those very valuable skills of not wasting anything. Thank God for that." Other partners reported that they were lead into environmental awareness during college through their friends and peer networks:

> I was conscious of it in college. Everybody was ecologically in-tuned, so that was probably my first conscious awareness, and that just followed into other patterns (Gerald).
>
> It was the beginning of graduate school when I became more conscious. I lived in a community household, and housemates of mine were vegetarian…that set a lot of those values (Gloria).

Aside from what their early ecological influences were, it appeared that part of what attracted partners to each other was their similar social and ecological ideologies, although only one woman remembered purposefully looking for a partner with these characteristics. It seemed that for most partners this attraction occurred in more subtle ways. For example, Steve and Elaine explained that neither of them had consciously set out to find a partner that was ecologically aware, it just happened:

> It was just more natural…it's more just life and the things that we share together more than we planned to do it this way…there was an assumption that it would be this way (Steve).
>
> It was a natural evolution from what I think of as a general worldview, which is very nonviolent, very pacifist, and that grows very naturally out of that (Elaine).

While most partners came into their marriages with at least a beginning awareness of and interest in the environment, their incorporation of more sustainable lifestyle practices continued to evolve and expand in the marital relationship. For example, Blaine talked about he and Callie's experiences with sustainable practices as a married couple, reporting, "I would say over the course of our marriage we've discovered different little

things that we can do...a lot of the things we do now we've picked up over the course of our marriage. I think it's been more experimental, we're like 'Let's try this for awhile.'"

There were three couples whose incorporation experiences were exceptions to the pattern described by this theme. When Scott and Sophie met in college, Scott had already adopted an environmental perspective and was practicing behaviors like recycling and vegetarianism. Sophie attributed her initial orientation to environmental awareness and related practices to Scott, reporting, "Scott was more motivated in the beginning. He taught me a lot." Scott recalled similar circumstances: "I think I [was practicing these behaviors] more than her. I think I educated her more. I don't think she was very conscious of that." Even though Scott was the initiator of a more sustainable lifestyle, Sophie explained that thinking ecologically made sense to her from the beginning, and now she sees no discrepancy in their level of awareness and commitment to environmentally responsible practices.

Similarly, Doug was the initial driving force behind his and Abbie's adoption of more sustainable practices. As Abbie recalled, "He was the main push behind all of our changing, changing our way of doing things." Doug did not directly acknowledge his role as the initiator, but he did trace the beginning of their family's shift to a more sustainable lifestyle to his anti-nuclear and anti-war involvements in the early 1970s. Unlike Scott and Sophie, Doug and Abbie had been married for 12 years before they became aware of environmental issues and started to make changes in their behaviors. According to Abbie, shifting their patterns of thinking and behaving that had been established for 12 years required an "incredible quantity of communication and disagreement and resolution, trying to find out what to do and trying new things." She

attributes the successes that they have experienced in living more sustainably to on-going processes of negotiation within the family.

Like Abbie and Doug, Janet and Ben started incorporating more sustainable practices into their lifestyle after they were married and soon after they had had their first child. In their interviews, Ben did not mention whether he or Janet was more of the initiator in moving the family towards environmentally sustainable behaviors, but Janet described herself as coming into this mindset before Ben: "I've always been leading the way in this stuff. He hasn't been opposed, but we haven't been quite on the same level." She has seen a shift more recently, though, commenting, "I think that's changing, actually. I feel like we're coming together." For Ben and Janet, as for Abbie and Doug, an integral aspect of incorporating more sustainable behaviors into their family's lifestyle was learning how to communicate and negotiate effectively.

Theme Two: ***Emphasis on Encouraging and Nurturing Children's Ecological Awareness***

Tying in with couples' agreement on the importance of parenting, parents overall were enthusiastic about sharing their ecological perspectives and sustainable practices with their children. Gerald, for example, commented:

> It's fun to see them incorporating this into their lives-going to the coop, buying food that tastes real good to them…it's something that they probably take for granted, but I'm sure down the road it's instilled in them as to what all this means.

One way in which parents encouraged children's ecological awareness was by talking with them about why they are doing things that are different from how many other families do them. Gloria explained:

> Even at a young age you can communicate to children about why you're doing these behaviors. You can make it simple, and I think children really care about their world, so anything you can relate to that helps.

Another avenue by which parents supported children in their understanding of the environment was through helping children to see the interdependence or connection of all things. Several children spent time working and/or playing in their families' garden, and as Blaine described:

> For educational reasons as much as anything else, I let her help me plant these plants and seeds and see them grow, and whenever anything was ready to pick I got her to pick it so that she could see what she had grown.

As parents tried to help their children feel more connected to the natural environment, some also emphasized teaching children to feel connected to their own bodies, an intuitive sense that they felt had been largely deadened in our contemporary society. Callie explained that she and Blaine encourage their children to counteract this disconnection:

> We try to say 'Listen to your body,' 'Do you have to make pee pee?' 'How do you feel after eating those 30 strawberries?' One of the challenges of our consumeristic culture is knowing your body and respecting your body and realizing these are not things I need, these are things somebody's trying to make me think I need.

In addition to instilling a sense of personal power in children by teaching them to be tuned-in to their bodies, parents also empowered their children by listening to and

respecting their ideas, and incorporating them into family decision-making when appropriate. As Ben described:

> We have these family meetings we do once a week where everybody's voice is heard…We're trying to not do a hierarchical structure. We're teaching them that what they have to say and what they think is important.

For Ben and Janet, part of including their children in their efforts to adopt more sustainable practices involves exposing them to the issues and people that comprise social and ecological movements. Janet reported:

> There's a lot of events we bring them to-lectures, concerts, protests…I feel like this way of doing things and of learning is really kind of creating an opening for them to be aware of all the issues and to really be able to think through things.

While not all parents involved their children in family decision-making and political activities to the extent in which Ben and Janet did, couples did seem to respect their children's ability to understand and to contribute to the family's evolving process of practicing a lifestyle that is less damaging to the earth.

Theme Three: *Strengthened Parent-Child and Spousal Relationships*

Amongst the benefits of practicing a more sustainable lifestyle for families, several couples mentioned spending quality time together as a family. Time together seemed to emerge out of the emphasis that couples placed on self-sufficiency, which is a hallmark of a more sustainable lifestyle. Callie, for example, talked about how she and Blaine would re-hang their children's fallen swing:

> We're going to kind of spat about which knot should be tied where…then she'll swing on it and we'll be happy about it. And then we got closer through the

> experience because we shared it. That brings us closer together by sharing these things.

Couples also reported that household chores, when done in a more sustainable way, can open up pockets of time for family members to spend together. Blaine reflected, "Insofar as I'm hanging diapers or planting things with Olivia, that's time that we spend together that maybe would have been replaced doing something else." Abbie, too, described the relational benefit of doing daily tasks without using convenience appliances:

> We haven't had a dishwasher since 1975. So, when you did dishes together you either goofed around or you bitched about stuff or you had fun, but it meant that it was more than just sitting here listening to the machine going after somebody had put the dishes in the machine.

Another way in which practicing a more sustainable lifestyle can carve out time for families is by calling for creative approaches to conventional practices. Doug reflected on an alternative approach that he and Abbie created:

> Instead of celebrating Christmas we would go camping down in Florida. Those are great family memories, warm family memories of times that we all got together and enjoyed each other's company. I think a lot of that arises from Abbie's and mine efforts to swim against the tide.

For Ben and Janet, the relational benefits stem from the quality of communication that they view as a major component of implementing more sustainable behaviors in a family. Ben described, "It certainly builds mutual respect and just by talking to each other and by communicating more you get to know each other." Janet, too, mentioned the benefits:

"It's very much related to the spiritual lives in the family. We are closer as a family than a lot of families are…I think there's more of an openness."

Strengthened family relationships, therefore, were viewed as stemming not only from the amount of time that families spent together, but also from the quality of this time. Time together was not spent in passive-oriented behaviors like watching television or sitting in front of the computer. Rather, the nature of the activities that couples described were action-oriented and were characterized by family members working together to accomplish a goal, like getting the dishes washed, or engaging in an activity together, such as planting seeds. As described by couples, therefore, the basic relational benefits of living more sustainably come from members spending time together where there are opportunities for family relationships to grow.

Theme Four: *Housework as a Shared Responsibility*

Even though the majority of couples had somewhat traditional family roles (wife-mother homemaker, husband-father breadwinner), overall, men participated in housework and childcare to a greater extent than what would be expected in a random sample of 12 couple households in the U.S. Several couples described housework and childcare responsibilities as shared, and they gave specific examples to support their claim. One such couple was Mandy and Bob, who raised children on a working farm in Vermont. Mandy and Bob remembered:

> With the four kids it was a shared thing, and I worked. He would do the wash, fold the clothes, he would iron, so it was equal in that way. In fact, he probably had more tasks than me (Mandy).

> There's never been any intentional restraint on my part to participate in the things that needed to be done...If I bled the chickens she would defeather them (Bob).

Another couple who shared many household responsibilities was Susan and Wes. In describing how tasks associated with meal preparation get divided, they explained:

> Wes does the shopping which is a big chore. The shopping, the carrying in, the putting away and keeping the pantry stocked...that's a big chunk of time that I don't have to participate in (Susan).
>
> [The cooking] has gone back and forth depending on what's going on, who's at home, who's at work, who's job is more stressful and what the deal is. It's changed over the years but it's basically a shared thing...She does spaghetti sauce and I do chicken and chicken stock for chicken dishes and soups and things like that...I make granola every week (Wes).

While housework was primarily shared among spouses, children of appropriate age were typically also expected to help. Among the tasks that children helped with were cooking, recycling, gardening, laundry, and composting. As Sophie reported:

> Whoever empties out the plastic bag will rinse it out and hang it up. If it's a jar of something, whoever gets the last dip will rinse it out...That's what we're teaching the children-you're responsible for yourself.

Scott, too, talked about the children contributing to the housework, and about how he and his eldest son have had conflicts around this issue ever since Scott paid him to work at the college gardens that Scott oversees. He explained:

He and I clash there, because I began to pay him to help me do things and now he's only going to do it if he gets paid. That pertains to sustainability, because everybody has to carry their load to get things done, including them at their age.

Within most families there was a general sense that there is work that needs to be done, somebody has got to do it, and whoever is able and available is the most likely candidate. Among the majority of the couples, there appeared to be fewer gendered expectations of who would do certain tasks in the household than typically occurs with division of household labor.

There were two couples, though, for whom domestic labor was more traditionally divided. As commented by Greg, "We found that we had tended to fall into more like regular, stereotyped sex roles, to our chagrin." Willa, too, talked about their division of labor and her frustration with it: "I've sort of fallen into a really traditional role, and I'm not completely satisfied with it." In detailing their responsibilities for domestic chores, Willa explained that Greg was supposed to be helping more with cooking and cleaning, but that those are issues "that we continue to struggle with."

Domestic labor was also very traditionally divided for Ed and Tonya. As Ed explained, "I shop when we need to and she shops for maintenance, but she does most of it...she does more of the general house cleaning...she puts a lot more time and effort into Katie than either her mom or I do, and it's not even her kid." Tonya reported, "I basically do 90% of the household work, which includes everything-cleaning, shopping, basically I do it all-the bills I do, and the laundry." Both Ed and Tonya attributed their unbalanced division of domestic labor to the fact that Ed works more than Tonya does. Unlike Willa, Tonya voiced no complaints about her husband's minimal participation in

housework, and even offered about her domestic responsibilities, "I don't find it overwhelming or difficult to do."

Theme Five: *Children as Challenging to a More Sustainable Lifestyle*

It was found that children pose some challenges for couples that are practicing a more sustainable lifestyle. These challenges seemed to be centered around such things as convenience, transportation, and the consumerism that children encounter on a daily basis. For Kim and Sam, having a young baby has brought them to do some things that do not fit in with their ideas about sustainability:

> They have these little 'Yo Baby' yogurts and because she's taking whole milk yogurt and I don't eat whole milk yogurt, I'm buying the single-serving size…I don't like to buy the smaller, convenience size but sometimes I do because it's convenient. So I'm conscious of it, but I don't have it perfected (Kim).
>
> One thing I have done is drive more, because it gets her to go to sleep. So before I'd be real strict about not wanting to drive unless I had to, but now it's like, 'Let's go for a little drive' (Sam).

With three daughters, Gill and Sharon have also experienced conflicts between raising children and trying to live more sustainably. For them, the main issues have been transportation and handling children's consumer desires:

> I don't think we do anything from a driving standpoint. We try to combine trips and things like that but it's really a minimal scenario. The big issue in the suburbs is having to drive your kids to the different things they do, whether it's dance class or soccer practice or swimming, you end up having to drive to take them (Gill).

> The kids will beg and plead for those Lunchables and I'm like 'No, no, no, no!' Then I realized I'm being too hard-assed so what I finally told them, I said 'You can have one Lunchable a year, and you can decide when you want that Lunchable' (Sharon).

Parents mentioned some interesting ways in which they handle consumerism. One mother referred to her approach as "playing fantasy". When her children expressed a desire for an item, instead of saying "No" right away she would ask them things like what color or flavor of the item they would want to get, what they think it would feel or taste like, and what they would do with it. She reported that sometimes just talking about and exploring the item was enough to satisfy her children. Another mother had a similar approach, but sometimes she would preface the exploration with a statement like "I can see why you would want (the item)." By using this technique, she felt like she was acknowledging her children's desires without encouraging them and as with the other mother, she found that sometimes this was enough to satisfy them.

For couples with adult children, tensions existed due to adult children not being as environmentally conscious as they would like them to be. Bob and Mandy spoke of a recent visit when one of their sons, his wife, and their young child stayed with them:

> There's some interesting tensions, like we can say to our kids that we don't shop at Wal-Mart and my son will say, 'That's nice dad, but the diapers are a lot cheaper at Wal-Mart so that's where we're going' (Bob).
>
> It's really hard. I found that even when they were here, it was like everything they touch has to be washed. So they'd wash them and put them in the dryer

without any consideration, and it was never mentioned to hang clothes on the line. I didn't say a thing, either...at some point you give up (Mandy).

It is notable that in addition to the challenges that couples reported in having children and practicing a more sustainable lifestyle, some parents also mentioned that having children served as an inspiration for them to live in a more environmentally sustainable manner. As described by Gloria:

> I think I am more concerned now. Maybe it's just a feeling of not wanting to leave the earth in a worse state than when I came into it, or to positively impact it for my children and their children's children.

Sam, too, spoke of being motivated as a parent to practice sustainability. He said, "She's given me more enthusiasm to do some gardening, just so I can have her involved when she gets bigger, and also so she can eat it a little bit later." Elaine explained that having a child had deepened her and Steve's commitment to a more sustainable lifestyle:

> We became a little more adamant about AND activist about the environment after she was born. Suddenly it became more important to do those things, you know, it wasn't just our lives we were talking about here, we were talking about hers, too.

As parents' reports indicate, therefore, having children can be a source of conflicts, as well as of motivation, for couples that are committed to practicing a more sustainable lifestyle.

Summary of Results

Regardless of the struggles that they may or may not have experienced in their endeavors with sustainability, a more sustainable lifestyle was something that couples

were committed to practicing. It was important to them that their children develop an ecological awareness and that they participate in the behaviors, as well as the thought processes, that compose sustainable living. Couples realized, though, that there were going to be unavoidable tensions between rearing children and living more sustainably. The goal for parents, therefore, was to find a balance between the demands and desires of children and their own commitment to a more sustainable lifestyle.

The ease with which couples divided up housework and childcare differed among couples. For most, there were few struggles because both partners pitched in and did what needed to be done in a collaborative effort. For others, it was more of a process of wives learning how to share their needs and husbands learning how to listen and respond. The bottom line was that communication and negotiation were the keys to being able to practice a more sustainable lifestyle. Callie, for instance, reported that she had had to learn to express her needs for help to Blaine:

> I can't say that I've always felt equal and I haven't struggled because I have and I still do. I think that the most important thing is just to keep the talking, keep the communication going, like "I'm having a hard week and I need more time this weekend"...So it's mostly been me being brave enough to ask for help and he usually being willing to do it.

Abby, too, commented on the role of communication in practicing sustainable living. When asked what kinds of changes she, Doug, and their sons had experienced in the process of shifting from conventional to sustainable practices, Abby replied:

> I think one of the biggest things is the type of communication. Either you have a tyrant who runs the show and has to be in charge of everything-and sometimes it

> felt like Doug was doing that to all of us-or you have a constant process of evaluating and determining what we will do and what we won't do. I think it leads to an incredible amount of communicating, and it has to be respectful listening to the other partner.

In addition, couples did not report that they were sacrificing very much in order to live more sustainably. Rather, couples seemed to find pleasure in practicing more sustainable behaviors, from saving money to spending time together to feeling empowered from being more self-sufficient.

The reinforcement and support that couples received from- and gave back to- their community of friends and acquaintances played an important role in their experiences with practicing a more sustainable lifestyle. These networks of like-minded people served as a source of motivation for couples, as a reassurance that these practices are feasible, even in an urban setting and with having children. According to Gerald, for example, "I think all our friends share at least some of what we believe…it helps to have those friends [for support]." Gloria, also, talked about the role of community in maintaining sustainable practices: "It's important to have people around you to push you towards doing more, people who just value what you're doing, because lots of times things do take a little more effort." Wes, too, brought up the importance of community for he and Susan, commenting, "We have always been able to find people with like minds, and that's been good. That just feels good."

Couples also drew upon their communities for information about the ways in which families can live more sustainably and where they can find the resources to do so. Janet described how she and Ben have been helped in this way:

> I think the element of who you're surrounded by makes a big difference. I think that if you become more aware you start gradually seeking out people who reflect that awareness. We have a sense of where we're headed and we seek out friendships that will foster the growth that we know we need to do. It's been a big element.

In addition, practicing a more sustainable lifestyle provided a way of being part of a community, and some partners talked about supporting the community as a component of sustainable living. As Sophie explained:

> It connects you with your community. You are supporting your community by buying local foods, and you might get to know who grows your food and where it comes from. It gives you a certain pride that maybe you wouldn't have otherwise, that you're buying your meat or produce from a local grower.

Further, Steve saw offering support in the community as an important part of a more sustainable lifestyle, claiming, "It's about supporting local organizations that do that, and I'm a strong supporter of local organizations. I think that part of being a good environmentalist is to support fledging environmental organizations."

As is evident in partners' reports, community has a vital function for families that are practicing sustainable behaviors, whether they are just starting out or have been living more sustainably for years. It provides an outlet for families to give and receive support for a more sustainable lifestyle.

CHAPTER 5

DISCUSSION

Overview

There were four main lines of questioning that the present study sought to explore. First, how do families become invested in environmentally responsible behaviors? Is it something that they have always done, or did they make a distinctive decision to start incorporating these behaviors somewhere along the way? Second, how do families maintain environmentally responsible behaviors? Specifically, what do individual family members contribute to helping the family unit to maintain practices that are less damaging to the environment? Third, what challenges and tensions do couples experience in adopting and maintaining ecologically-conscious behaviors in the context of having children? Did living this kind of lifestyle become more difficult in any way once children came into the picture (assuming that the lifestyle was in place before the couple had children)? And fourth, what do couples see as the benefits of ecologically-conscious living for their family, in addition to lessening their impact on the environment? The discussion that follows will present an illustrative model of the findings based on concepts that emerged from couples' responses to these research questions, as well as the findings' implications for the theoretical models and literatures that provided a framework for the present study. Additionally, uses of the findings for applied practice will be explored. Lastly, the limitations and strengths of the present study will be discussed.

Model

Definition of Concepts

In generating a model that summarizes in graphic form the processes by which families incorporate and maintain a more environmentally sustainable lifestyle, key concepts that captured such process were identified from the findings and organized to demonstrate their interrelationship (see Figure 1). The model captures two main processes that emerged from the data: First, the process by which couples initially came to practice more sustainable behaviors, and second, how couples implemented and maintained a more sustainable lifestyle and the factors that influenced their ability to do so. Concepts and their characteristics were identified for each process.

The process by which the majority of couples initially came to practice more sustainable behaviors is represented by the concept of "Shared Ideologies: prior to marriage". As described in Chapter 4, most partners reported that they had attained some level of environmental awareness and were already practicing one or more related behaviors prior to meeting and marrying their spouses. As would be expected, sharing similar ideologies played a role in the mutual attraction that partners felt. The ideologies that couples shared were characterized as being *environmental* and *social* in nature. Environmental ideology involved a belief in the importance of the health of the earth and a commitment to lessening one's own negative impact on the natural environment. Social ideology was captured as beliefs in gender equity and having fewer assumptions or expectations about behavior based on notions regarding gender, and in having concern for the well-being of people all over the world. It should be noted that a few couples shared social, but not environmental, ideologies prior to marriage. These couples

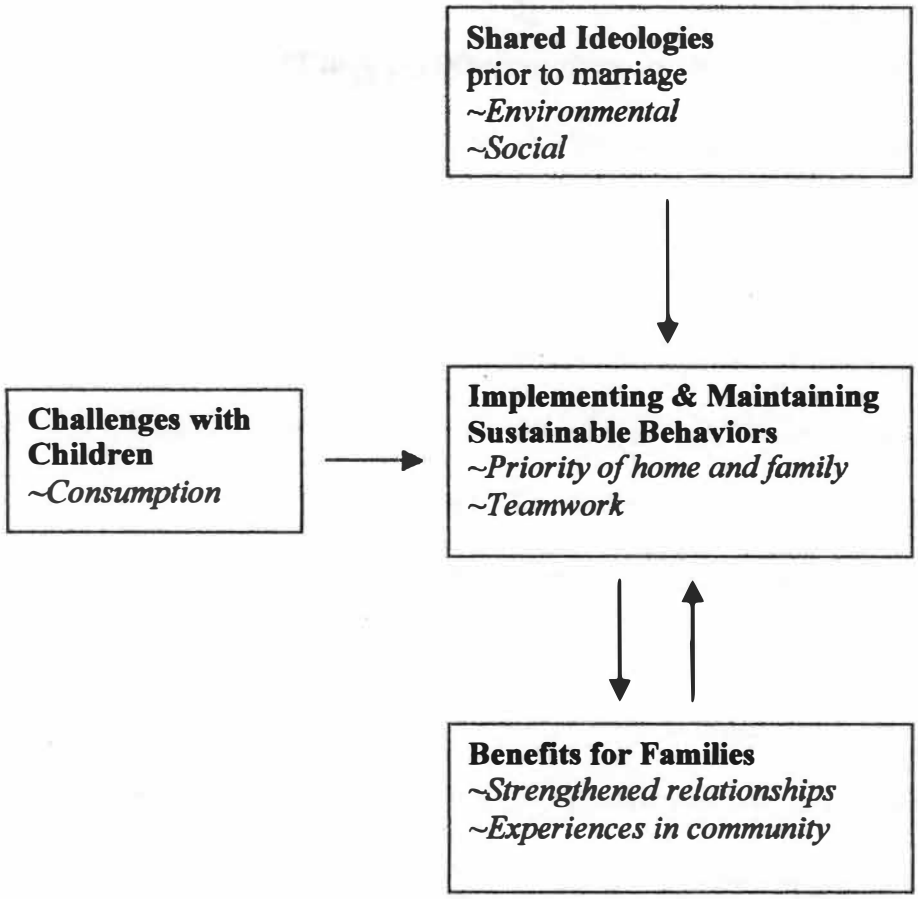

Figure 1. Model for the Processes by Which Families Incorporate and Maintain Sustainable Living Practices

developed a shared environmental ideology *after* marriage, due to one partner's initiation efforts.

The concept of "Implementing and Maintaining" captures the process by which couples incorporated environmentally responsible behaviors into their daily lives and continued to practice them over time. It includes an element of experimentation, as couples tried out new behaviors to see how well they fit into their family's lifestyle at a particular time. In the process of implementing and maintaining, it was found that sustainable behaviors are performed on a continuum. That is, some behaviors will be maintained well, others will be maintained to a lesser degree, and some will be discarded entirely (perhaps to be resumed at a later time when circumstances are different).

One characteristic of implementing and maintaining sustainable behaviors is couples' *priority of home and family*. Even though it was important for couples to have sufficient financial resources so that their families could live comfortably, they still placed emphasis on home and family life. This was evident in the importance they placed on being effective parents and in spending time engaged with other family members in discussion and activity. Couples also emphasized home life by putting time and energy into more sustainable ways of doing things around the house, such as baking bread from scratch or trying to repair a broken appliance rather than immediately tossing it and buying a replacement. Prioritizing home and family was important in the process of implementing and maintaining sustainable practices because it meant that couples allotted time in their days and weeks to perform sustainable behaviors, and also because spending time with their families aided in members working together as a team.

Another characteristic of implementing and maintaining sustainable practices is that of *teamwork*. Teamwork captures couples' attitudes toward domestic labor and the collaborative effort couples made to take care of household chores and childcare. Rather than operating through exchange principles in which the prevailing attitude is "I'll give as much as I receive," partners approached domestic labor with the attitude that "There are things that need to be done, and if I'm able I will do them." Working together as a team aids in implementing new behaviors because partners are more likely to try new behaviors if they know that the burden of performing a behavior will be shared with their spouse. As for maintaining a more sustainable lifestyle, it cannot be done unless both partners are willing to pitch in and do their share of the workload.

The concept of "Challenges with Children" captures the difficulties that couples encountered in trying to implement and maintain sustainable practices while raising children. The main characteristic of the challenges that couples faced is that of *consumption*. Consumption involved parents dealing with their children's desires for products that they had been exposed to through their peers and the media. Consumption also consisted of parents relying more on convenience items, to save time and/or money, and also on their automobiles, to save time and to transport children safely on roads that would be too dangerous for them to walk or bike along.

The rewards for their families that couples perceived as stemming from their practice of a more sustainable lifestyle is represented by the concept of "Benefits". One characteristic of the benefits that families received is *strengthened relationships*. Strengthened relationships were the result of spending quality time with family members

engaged in some kind of activity or in a discussion. Family relationships were also strengthened by the high levels of communication that some couples found to be an integral aspect of living more sustainably. Parent-child relationships, specifically, were made stronger by the emphasis that parents placed on encouraging and nurturing their children's sense of ecological awareness. By having this as a high priority, parents not only spent a lot of time with their children, but they also listened and gave credence to their children's questions and ideas about ecologically-related things, which are processes that build mutual respect.

Couples also benefited from their *experiences in community* that resulted from their efforts to live more sustainably. Seeking out new information and resources regarding sustainability allowed couples to make friends and acquaintances with other like-minded people. Feeling a part of something bigger than themselves made couples feel good. In turn, couples could offer persons in the community information or suggestions from their own experiences, or they could support local growers and environmental organizations through their spending decisions, thus completing the circle of giving and receiving.

Interrelationships Among Concepts

The model illustrates the interrelationships among the following concepts: "Shared Ideologies: prior to marriage", "Implementing and Maintaining Sustainable Behaviors", "Challenges with Children", and "Benefits for Families". In the model, "Shared Ideologies, prior to marriage" indicates the major pathway by which couples initially came to practice more sustainable behaviors. "Implementing and Maintaining Sustainable Behaviors" is represented as the outcome of partners sharing environmental

and social ideologies, for both couples who shared these ideologies prior to meeting and for those who developed these shared ideologies after marrying. The concept of "Challenges with Children" is illustrated as impacting couples' abilities to implement and maintain sustainable practices. Last, "Benefits for Families" is shown as having a bi-directional relationship with "Implementing and Maintaining Sustainable Behaviors" such that families receive benefits from practicing a more sustainable lifestyle, and the benefits act as positive reinforcement for the implementation of new, and maintenance of old, environmentally responsible practices.

Integration of Results with Theoretical Models

Family Ecology Theory

Family ecology theory (FET) provides a framework for the study of couples' experiences with the incorporation and maintenance of more environmentally sustainable lifestyle practices. It is also useful in highlighting areas of potential challenges, as well as the benefits, that are characteristic of living more sustainably. Due to its descriptive nature, family ecology theory offers information about issues or areas of focus that are salient to families that are practicing a more sustainable lifestyle.

The concepts of FET that were found to be relevant to couples' experiences with incorporating environmentally responsible behaviors into their daily lives were *values*, *adaptation*, and *management*. Values were important in the mutual attraction that partners felt based on their shared social and ecological ideologies. These shared values also played a role in keeping couples together, for as some partners stated or implied, it would be more difficult to hold the relationship together without a joint interest in and commitment to a more sustainable lifestyle. Unlike ideological differences in areas such

as religion or spirituality, for example, sustainability is not very feasible if only one partner is practicing it because of the nature of the behaviors that are involved. In a family context, it would be too much work and likely self-defeating if there was only one spouse who was committed to a more sustainable lifestyle.

Adaptation to external contexts in the environment was found to be a defining characteristic of couples' experiences with sustainable living. Such contexts existed in areas like transportation, as it was not always safe and/or practical to use alternative means of travel, and the availability and cost of organic produce in local shopping markets. Adaptation takes place within families, but also in the external environment, as the actions and behaviors of families shape their surroundings. This was supported in the data through couples' lifestyle practices such as gardening in neighbors' yards, which served to build neighborhood community, and also through their use of walking and biking as means of transportation, activities that also can build community and which have the potential to influence other people to park their cars and do the same.

As the process of managing, according to FET, entails such tasks as planning, implementing, and evaluating, management was relevant to couples' incorporation experiences. Management was manifested in that couples and their children had to figure out, through trial and error, which sustainable practices fit best with their current life situation, and which ones did not. The data revealed that this process repeated itself periodically over time as new information and resources became available to couples, and as families shifted into different life stages.

In terms of maintaining a more sustainable lifestyle, the concepts of FET that were supported in the data were *resources* and *communication*. With the emphasis on

self-sufficiency that characterizes sustainable living, couples were adept at drawing on personal as well as community resources. For example, in their effort to fix broken appliances rather than replacing them, one couple discovered that the woman had a knack for electrical work whereas the man was better suited to dealing with the plumbing. Among other personal resources that families drew upon were knowledge of gardening and solar-powered systems, physical stamina to bike, garden, and cut and stack wood, and creativity to think of more environmentally-friendly ways of doing things. The community resources that were utilized centered on avenues for information gathering, community supported agriculture (CSA) programs, and reinforcement for families that they were not alone in their efforts to live more sustainably.

The concept of communication from FET was found to be a vital component of families' experiences with sustainable living. For women especially, being able to express their needs and having their partners listen to them and respond in a constructive manner was reported as being key to making the lifestyle work for them. Also important to couples was encouraging children to take an interest in environmental issues and responsible behaviors and to have them share their thoughts and ideas on the family's sustainability efforts. In general, effective communication amongst family members was viewed as a process that served to enable, as well as enhance, teamwork in practicing a more sustainable lifestyle.

The challenges and tensions that parents faced in trying to live more sustainably and have children were represented in the FET concepts of *decision making* and the *socio-cultural environment* of children. The decision to have children was less of an issue for couples than the decisions that came after children were born. All of the

couples in the study had, or were currently, using cloth diapers instead of disposable ones. Also, all of the mothers had chosen to breastfeed their children for some amount of time. Decisions regarding sustainability which parents faced centered on issues related to the extent to which it was appropriate for parents to "force" their chosen lifestyle on their children. It was found that tensions tended to crop up around choices involving food, purchasing habits, and energy and water use in the home. As discussed earlier, while these challenges never went away, parents had accepted that there needed to be a certain amount of flexibility in what they emphasized with their children when it came to sustainability. Parents experienced this as limiting the tensions between themselves and their children, but they also reported that by giving their children choices they hoped that it would help them learn how to make good decisions as they became more independent. In terms of the influence of the socio-cultural environment on children, the consumerism that children encountered in the media and from their peers was found to be a common concern among parents.

Concepts of FET that were relevant to couples' perspectives on the benefits of a more sustainable lifestyle for themselves and their children were the *quality of human life* and *human betterment*. Couples reported that they believed that the physical and mental well-being of their family members was enhanced due to the high quality of food that they were consuming and their efforts to shift away from an emphasis on the accumulation of material goods. Concerning the latter, couples explained that if you are buying less stuff then you need less money, which means that one or both parents can decrease the amount of work they do outside the home, thus freeing up time and energy for other things. In terms of human betterment, it was voiced as a hope among couples

that their efforts to live in a more sustainable manner would have some positive impact on local and global ecological systems that would benefit persons living today and future generations to come.

Ecofeminist Theory

Ecofeminism is a branch of feminist thought in which a connection is drawn between women and nature and the misuse and exploitation of both within a dominant patriarchal paradigm. There have been three waves, or movements, in ecofeminist thought, each of which has conceptualized the connection between women and nature differently. Couple and household models for each of these three waves were presented and discussed earlier. Couples that were interviewed for the present study fit most closely into the second wave ecofeminist model, due to their quasi-traditional gender roles and their emphasis on home and family. Among couples, women tended to be homemakers, caring for children and performing the bulk of household tasks and men were generally the breadwinners. Also in keeping with the second wave model, even though women were more involved in the home compared to men, both partners placed importance on household affairs such as parenting, eating whole foods and freshly prepared meals, and increasing the family's self-sufficiency.

While overall couples most closely represented the second wave ecofeminist model, it was not an absolute fit. For second wave ecofeminists, there is a clear distinction between the genders, with women being different from men largely due to their interconnectedness with nature. This distinction, while intended to place women in a position of reverence, has in some ways placed them in a position of being "less than" within the context of a patriarchal society. Thus, with the distinction made between

"women's work" and "men's work", which is characteristic of second wave ecofeminism, it would be expected that couples with this orientation would have little overlap in terms of their involvement in domestic labor. However, for the present study, it was found that whether or not women worked outside of the home, men tended to be relatively involved in domestic labor related to childcare, meal preparation and clean-up, and general household cleaning. Among couples, there seemed to be fewer unexamined assumptions about behavior based on gender. Rather, expectations seemed to stem from practicality, that there is work that needs to be done, and the availability of partners to contribute to domestic duties. Due to this process, couples resembled also a third wave approach to ecofeminism in that gender was not assumed to be a guiding framework for spouses' behavior.

Integration of Results with Research Literature

Definition of Sustainable Living

Compared to contemporary, mainstream American households, couples participating in the present study were practicing lifestyles that could be considered more environmentally sustainable. As reviewed in a previous section, a more sustainable lifestyle involves conscientious decision-making on issues concerning food, waste, energy, transportation, and family planning. In the present study, it was found that couples emphasized eating locally grown and/or organic foods. They purchased the bulk of their food at supermarkets, and occasionally through a CSA (community supported agriculture) program. A small portion of families' food was grown by the family themselves. Couples also placed importance on using fresh, whole foods in their meal preparation rather than using prepackaged food items.

In their efforts to live more sustainably, couples were also taking steps to reduce their households' waste production. A first step was lessening their consumption of material goods. Second, couples tried to fix broken items or reuse household goods when it was feasible. As a third step, families were very active in recycling paper, cans, glass, plastic, and anything else that they could take to a recycling center. In terms of recycling human wastes, there were no families that used a composting toilet or who talked about collecting and reusing human wastes generated in their households.

Reducing energy consumption was a key concern among couples. The types of practices to conserve energy that couples engaged in ranged from using compact fluorescent lightbulbs to installing a solar hot water heating system. Other behaviors included line-drying clothes, setting the thermostat high in the warmer months, and heating with wood and passive solar in the winter. Another energy-saving technique reported by one couple was keeping the refrigerator well-organized so that everyone could easily find what they were looking for and not stand in front of it with the door open.

In terms of using alternative means of transportation, couples and their children were able to do some walking and biking, but many families were fairly car-dependent due to the proximity of their homes to work and school, as well as the dangerous conditions for pedestrians and bikers on the roads near their homes. Besides using alternative means of transportation, couples engaged in practices such as car-pooling kids to and from school and activities with other parents, and combining trips in the car so that they got the most efficiency out of their car use. Some couples reported purposefully

choosing the location of their home within close proximity to their work, the children's school, or both.

Family planning as an environmentally-conscious behavior was the one area of sustainable living that was not supported by the data from couples. While it is possible that couples had engaged in family planning methods, only one couple talked about recognizing the connections between the state of the ecological environment and population size, and also the high consumptive habits of children born in the U.S. compared to those born in other countries. This couple also reported that due to these considerations, they struggled with their decisions to bring children into the world.

Division of Household Labor and Models of Equitable Relationships

As practicing a sustainable lifestyle often requires more domestic labor due to its emphasis on self-sufficiency, an equitable division of household labor is an important factor in the success with which couples can implement and maintain more sustainable practices. Like the earlier findings, the data from the present study indicated that women performed the majority of domestic labor including shopping, cooking, cleaning, and laundering. However, in the two households where both spouses were employed full-time, domestic labor was split close to fifty-fifty. Unlike the findings that were reviewed from the literature on the mental health effects of domestic responsibilities, though, only one woman reported experiencing regular frustration with what she believed was an unfair burden of labor on her. Perhaps the majority of women in the present study did not experience negative emotional effects from performing the bulk of the domestic labor because it was found that husbands were relatively involved in household work involving childcare, meal preparation and clean-up, and general household cleaning. Some women

also reported that at times when it had felt like they were responsible for more than their fair share, their husbands had been responsive to their concerns and had picked up more of the load. Therefore, even though for most couples, women performed the larger portion of domestic labor compared to men, husbands did significantly contribute to housework and childcare responsibilities.

In considering the two egalitarian models for relationships generated by Barnett and Rivers (1996) and by Schwartz (1994), the couples in the present study most closely resembled Schwartz's model of the "peer" marriage. Like for couples in Schwartz's research, home and family were emphasized by couples moreso than economic success. The employment of one or both partners outside the home was viewed as a necessity to give the family income, and for some their employment was pleasurable, but there were no partners that appeared to be committed to their careers at the expense of their marriage and family life. As it was found in Schwartz's study, employed partners were in professions or specific jobs that gave them some degree of flexibility in their schedule which allowed them to attend to the needs of their families. Also indicative of the peer marriage was the equal status of partners in terms of access to money and influencing decision-making, which was found regardless of whether or not women were employed outside the home.

Environmental Literature

There were some similarities between the findings reported by Scherch (1997) in his study of individuals practicing an environmentally sustainable lifestyle and those of the present research. The similarities are limited, though, by the differing nature of the research questions and the unit of analyses for each study. Similarities, however, were

found in the sociodemographic characteristics of the samples and in the environmentally responsible behaviors that participants were practicing. For example, as in Scherch's research, the participants in the present study were white, highly educated, and with their average age in the forties. Also, some of the early influences on sustainability that were mentioned in both samples were growing up in a home with limited resources (due to the Depression or other economic struggles), having parental role models, traveling, and being influenced by a partner. Behaviorally, participants from both studies emphasized whole, organic, and local foods in their diets and took steps to reduce household energy and water consumption. They also used alternative means of transportation, when possible, to reduce their automobile use. From a parenting perspective, participants in both studies had experienced tensions with external pressures on their children, like from peers and the media, which challenged a more sustainable lifestyle.

There has been other socioenvironmental research that has looked at demographic predictors of environmental attitudes and behaviors, and for which similarities were found in comparison to the results from the present study. Prior research has suggested that women tend to be more likely to practice "green" behaviors compared to men, and that was supported in the data although the overall difference was small (see Table 1). Regarding race, since the entire sample for the present study was composed of white participants, it is not possible to make comparisons in environmental attitudes and behaviors between whites and persons of color. As the literature suggests (Taylor, 2002; Jones, 1998), though, the environmental concerns of persons of color has been somewhat focused on solid and toxic waste dumps due to the frequent proximity of these sites to residential areas in which persons of color reside. Also, it has been

proposed that differences in environmental actions and behaviors between whites and persons of color can be attributed to experiences of oppression and a sense of powerlessness among persons of color in the U.S. (Parker & McDonough, 1999; Kalof et al., 2002). In consideration of these factors, therefore, it is plausible that the nature of the present study is such that it is less applicable to the environmental orientation of persons of color than to that of whites in the U.S.

Like previous research has indicated, the sample for the present study supports findings that environmentalism is positively correlated with educational level (Mazur & Welch, 1999; Dietz et al., 1998; Scherch, 1997). For example, out of the 24 participants in the present study, three had less than a Bachelor's degree and over half had obtained at least a Master's degree. It has also been suggested in the socioenvironmental literature that environmentalism is strongest among younger persons (Van Liere & Dunlap, 1980; Dietz et al., 1998), yet that was not found to be the case for the current sample in which the majority of participants were 40 to 50 years of age. Since the present study focused on families living in an urban setting, it is not possible to suggest any differences between levels of environmentalism for urban versus rural residents.

Implications for Theory

Family Ecology Theory

Since family ecology theory is a general theory that can be used as a framework for studying a broad range of topics, from micro to macro levels, its concepts remain rather vague until they are applied to a specific phenomenon. The findings from the present study, therefore, serve as a means of illustrating relevant concepts from FET as they are applied to families that are practicing a more sustainable lifestyle. For example,

the concept of *decision-making* in FET encapsulates several types of decisions, and processes in making them, that are made within the family context. The present study, though, illustrates the decisions and decision-making processes that are specific to families who are living more sustainably. The result is that the current findings offer an applied perspective on some of the concepts addressed by FET.

Another implication of the present research for family ecology theory is that it deals with issues of power and gender within the family context, which is a perspective that has lacked development in FET. With feminist ideas not originally part of FET, Bubulz and Sontag (1993) called for an inclusion of feminist concepts in contemporary applications of family ecology theory stating, "Family ecology theory can and must address the sex-gender system and sex discrimination and be used to bring about change that will be beneficial to both sexes" (p. 428). The present study has accomplished the inclusion of feminist perspectives through its attention to the initiation of sustainable behaviors, the division of domestic labor, and the elements of communication between spouses. As well, the findings of the present research promote an equitable, home- and family-centered couple relationship as one that is well-suited to the practice of a more sustainable lifestyle, which is a model that can be used to bring about change that benefits both women and men.

Ecofeminist Theory

As ecofeminist frameworks represent a macrolevel approach to issues pertaining to gender and nature, the present study offers the development of a microlevel ecofeminist perspective. This microlevel perspective is accomplished by the present study's focus on the family, and the gender issues that pertain to couples practicing

ecologically responsible behaviors in the context of family life. Concepts from the three waves of ecofeminist thought, as presented by Plumwood (1994), were used to create representative models of family households characterized by differences in the division of household labor among couples and the degree to which families practiced a more sustainable lifestyle. The findings from couples' interviews, then, were fit back into the models to see which one was most largely represented in the current sample. While the majority of couples in the present study had characteristics most closely resembling the second wave of ecofeminism (see discussion above), their tendencies towards sharing domestic labor was more indicative of a first or third wave ecofeminist approach to the division of household responsibilities.

Perhaps, therefore, when applied at the microlevel, in the case of the present study within the context of the family, the three waves of ecofeminist theory are manifested differently than at the macrolevel of a larger group or society. If so, the present research could serve as an initial step towards the development of a microlevel application of ecofeminist theory, one that would complement the more macrolevel approach that is characteristic of ecofeminist perspectives.

Implications for Research

The present study extends previous research on environmental behaviors in two major ways. First, while research in environmentalism is typically conducted with the individual as the unit of focus, the present research is interested in environmentalism at the family level. Using the family as the unit of analysis is particularly relevant for environmental studies because it is often within the family context that individuals, be they spouses, children or other relations, are exposed to and adopt lifestyle practices that

are more environmentally sustainable. Certainly, the study of individuals and environmentalism has much to offer in understanding attitudes and motivations for environmental behavior. However, expanding the focus to include spousal and parent-child relationships within the household context will offer a more complete picture of the variables that play into the adoption and maintenance of a more sustainable lifestyle.

A second way in which the present study expands previous research on environmental behaviors is that rather than focusing on just one environmentally responsible practice, like recycling or energy conservation, as other research has done, it takes into account several environmental behaviors that are practiced as part of a sustainable lifestyle. Looking at sustainability as a lifestyle is important because while each environmentally responsible behavior that is maintained is better for the environment, it is in the conglomerate that the most positive, or least negative, impact is made on the environment. Additionally, lifestyle practices are intricately connected so it makes sense to study them as a whole rather than in parts. The present study, therefore, through expanding on previous research by having families and multiple sustainable behaviors as its focus, offers a new way of conceptualizing environmental behaviors that is more holistic. It is this perspective on environmental behaviors that that will yield the most useful information from research which can be used for the development of programs and services designed to encourage and support families in adopting more sustainable lifestyles.

As for future research on families and sustainable living, the present study demonstrated that there are several areas in which additional research is needed to further develop an understanding of the means by which, and issues involved in, the adoption of

a more sustainable lifestyle within the context of the family. While the present research highlighted some of the congruencies and tensions that can occur between partners who are living more sustainably, additional studies could look more in-depth at the discrepancies in partners' motivations for and areas of emphasis in maintaining a more environmentally-friendly household, and the extent to which these discrepancies impact the level of sustainable living that couples and families attain.

Additionally, the present research brought forward the influence of children in families' practices of sustainability. Further research needs to be conducted on the influences of children on parents' adoption and practice of sustainable behaviors, and the ways in which children impact the extent to which families can maintain a more sustainable lifestyle. Building upon what was revealed in the present study's findings, subsequent studies should include questions regarding both the challenges and the benefits that parents face in raising children and trying to practice a more simple and sustainable lifestyle. Future studies of families and sustainable living can also yield information about children's development of knowledge and behaviors associated with environmental responsibility, and how this development is influenced by parents and communities.

A third facet of sustainable living that was highlighted, but not developed, in the present study is that of families practicing this lifestyle in an urban setting. The rural homestead has been and continues to be the prevalent model for environmentally sustainable living, yet based on the fact that the majority of Americans live in an urban or suburban area, it is time for an additional model of sustainable living to be generated that is applicable within an urban setting. For this to be accomplished, subsequent research

needs to focus on the issues, challenges, and resolutions that are experienced by urban couples and families who are trying to live more sustainably. Last, as the present research is the first of its kind in integrating environmental behavior and family studies, further research that closely replicates the questions addressed in the present study is needed to provide support for and revisions to the current findings. In addition to grounded theory methods, conducting case studies, longitudinal research, and/or using quantitative methodologies are all approaches to the study of families and sustainable living that would yield beneficial information for furthering an understanding of the incorporation of environmentally-friendly practices into the daily lives of families.

Implications for Practice

There are ways in which the findings of the present study can be applied within professional, educational, and informal realms. Considering the finding regarding high quality spousal and parent-child interactions among families practicing a more sustainable lifestyle, family therapists and other professionals that work with families can introduce elements of sustainability to families in which this level of intervention would be appropriate. Spending time in nature, building something, walking or biking instead of driving, turning off the TV (or getting rid of it), and making conservation of energy, water, and/or materials a game for children are all practices that therapists and family professionals could suggest that family members do together to improve their relationships.

The results from the present research can be used to develop and inform Family Life Education (FLE) programs for couples and families. Programs applying the data might focus on specific aspects of living more sustainably, like getting started for

instance, or certain elements of sustainable living as identified in the findings could be incorporated into already existing programs. For example, an FLE program on reducing family stress would include families spending time together in nature through activities like going on walks, gardening, or even hanging their clothes outside to dry as one step towards counterbalancing the stresses that families experience. Additionally, the findings can inform the development of educational materials for organizations that promote a sustainable lifestyle.

Third, it is the intent of the present author to generate a trade book for families from the results of this study. Therefore, the information that has been presented will be used informally by couples and families who are interested in living more sustainably. The book will serve as a guide for families that are new to sustainability and who are looking for ways to practice more environmentally-friendly behaviors, giving them information about what to do as well as what some of the issues are that couples and parents face when adopting this alternative way of thinking and behaving. It will also be useful for families that are in other stages in the development of a more sustainable lifestyle because it will offer support for their environmentally-friendly practices and it is likely to give them some new practical and relational perspectives on sustainability.

Limitations of the Study

A limitation of the present study is the lack of diversity in the sample of families that have adopted more sustainable lifestyles. Sample homogeneity implies that the study findings might not generalize to a broader population. The sample for the current research consisted of highly educated, White families for whom the mean annual income was $50,000. Whereas the sample is not representative of families in the United States, it

is representative of the *target population* of families living more sustainably. As stated previously, the author intends to use the findings of the study to generate an informative and educational guidebook for families that want to incorporate more environmentally sustainable practices into their daily lives. Her target audience will be middle to upper class families of any race or ethnicity, since it is in these higher income families that the majority of consumption occurs. Therefore, the sample for the present research, while not representative of the larger population, *is* representative of the population for whom the study results are intended.

Clearly, however, the sample's racial, ethnic, and socioeconomic class homogeneity limits the researcher's ability to apply the study findings, wholesale, to underprivileged and minority families. There are no doubt economic and cultural factors that this research has not probed that are relevant to sustainable living. Future research should investigate such factors with a more diverse sample.

Relatedly, the small sample size of the present research constrains the generalizability of its findings to the larger population of families in the United States. Qualitative research of this sort necessarily sacrifices sample diversity and size in favor of a more in-depth understanding of a social phenomenon occurring in natural settings. The author believes that the depth of the knowledge gained through this research lays solid ground for more elaborative inquiries that seek to replicate the themes discovered here, and answer more detailed questions related to these themes.

Strengths of the Study

A major contribution of the present study is that it provides a family-level perspective on the practice of environmentally responsible behaviors. As much of the

previous research has focused on the environmental behaviors of individuals, the present study has shifted the focus of environmentalism to the context in which such behaviors are largely practiced and reinforced. This emphasis o lived experience is a hallmark of qualitative research, for as Gubrium and Holstein (1997) describe: [Qualitative research] is distinguished by a commitment to studying social life *in process, as it unfolds*" (p. 12, italics added). Studying environmental behaviors in the context in which they are practiced provides a more complex picture of the factors that influence individuals' and families' efforts to adopt a lifestyle that is less damaging to the environment.

By shifting the scholarly lens to environmentalism *as lived* by real people, this study is, uniquely, situated in urban settings, where the majority of Americans live today. Remarkably, the ways in which families that live in an urban setting adopt and maintain more environmentally sustainable lifestyles is an area that has received little to no attention in the academic literature. Yet, it is a timely topic with important implications for the fields of environmental studies and family studies, as well as more global implications for the future of human and non-human life on planet earth.

A final strength of the current research lies in its interdisciplinary nature. The study draws insights from environmental studies, psychology, sociology, and family studies. It describes why sustainability is important and what can be done in order to practice a more sustainable lifestyle; clarifies how individual attitudes and motivations link with group needs; and presents the issues that are salient to families that are living more sustainably. In this way, therefore, the present study serves as a model for the integration of various disciplines as they relate to the incorporation and maintenance of environmentally responsible behaviors in the daily lives of families.

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